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FINAL REPORT

**Phase I
Expanded Site Inspection
for the
68th Street Dump Site
(MD-174)
Volume I**

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1.0 Introduction

1.1 Authorization

The Maryland Department of the Environment, Waste Management Administration (MDE/WAS) conducted this Phase I Expanded Site Inspection (PI-ESI) under Cooperative Agreements V-993004-01-0 and V-93122-01-0 with the U.S. Environmental Protection Agency (USEPA), Region III. This PI-ESI was done under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA). Additionally, MDE is authorized to perform this study under Title 7, the State Environmental Article.

1.2 Scope of Work

The MDE/WAS was contracted by the USEPA to perform a PI-ESI of the 68th Street Dump Site (MD-174). The scope of the study included: review of the available file information; several initial site visits to select sampling locations; collection of non-sampling data; identification of potential safety and health concerns for the samplers; and sampling of waste and environmental media. The potential for release or actual release of hazardous waste from the landfills and other onsite sources through the groundwater, surface water, soil, and air is evaluated. The populations and sensitive environments which may be or are being affected are then discussed.

1.3 Executive Summary and Conclusions

The estimated 125-acre 68th Street Dump Site is located in Baltimore County near Rosedale, Maryland. It is the site of former unlined landfills that received unknown types and quantities of industrial wastes during the 1950's and the 1960's. Additionally, waste oil was dumped into lagoons, contaminating nearby surface waters. These operations, along with open burning and dumping, resulted in complaints by the local residents. Debris associated with the landfill operations is still present onsite.

Six owners of property on the site have been identified. Two of the owners lease a portion or all of their property to other firms.

There are two facilities onsite that are regularly active, Browning-Ferris Industries (BFI), a refuse collection business, and the Baltimore County Redhouse Run Pumping Station. BFI has approximately 100 employees; according to BFI, the facility does not handle hazardous wastes. It leases property from the Tyler family; Mr. Robb Tyler was the operator of the former landfills.

There is a third, semi-active facility, the M.F. Winstead property, that is used for storage of trailers, and slag of composition

unknown to MDE. This facility is situated on the R.M. Winstead Site (MD-133), which replaced the La Crosse Chemical Company after it burned down in the 1970's. The former Maryland Brass and Metal Works building was also located in this area.

Also present is an abandoned radio transmitter station containing PCB wastes. These wastes were to be removed in 1993 by a licensed contractor and shipped to a proper waste disposal facility. To date, this has not been done.

Most of the site is now vegetated, and there are wetlands onsite. Six surface water bodies are located on or adjacent to the site, including Herring Run, which is used for fishing.

Access to most of the site is unrestricted, and it is used for unauthorized recreation, burning, and dumping by trespassers.

Due to past and present waste disposal activities, and the short depth to the aquifer (10-30'), the groundwater under the site is very likely contaminated. Nearly all residents within a four mile radius of the site obtain potable water from the Baltimore Municipal System, and are therefore unaffected at present. Six domestic wells are present within 0.75 mile of the site, five of which are located to the southeast on Philadelphia Avenue. There is a potential for contaminants from the site to reach the wells on Philadelphia Avenue. However, four of these wells were sampled in 1993 by Baltimore County and analyzed by State of Maryland laboratories. No organic contaminants were detected. Lead was found in one well at 0.07 ppm; this well is being resampled by Baltimore County. There is a well at the BFI facility that is used for non-potable purposes and was sampled during this study. No contaminants were detected at levels of concern to human health.

Organic compounds and inorganic substances were detected in soil samples collected from the areas of the landfills, the old transmitter station, and the BFI property, and in sediment samples collected on or adjacent to the site at levels greater than three times the background concentrations. These contaminants include arsenic, beryllium, lead, cyanide, pesticides and polychlorinated biphenyls (PCBs) in one or more soil samples. Sediment samples contained mercury and polycyclic aromatic hydrocarbons (PAHs), establishing contamination of wetlands and fisheries. Six contaminants were also detected in one or more aqueous surface water samples at levels above the Ambient Water Quality Criteria (AWQC) recommended for the protection of aquatic life.

2.0 Site Description

The Site is an approximately 125-acre tract of land located east of the Baltimore City-County line and Interstate-95, and south of Pulaski Highway (Route 40) and Rosedale, Maryland. The estimated site area and its boundaries are shown in Figures 3 and 5. The

site boundaries are Interstate 95 (west), the Baltimore and Ohio railroad tracks, operated by CSX transportation (north), Herring Run (south), and Redhouse Run (east)."

Two other CERCLA sites are located next to the 68th Street Dump. The Colgate Pay Dump (MD-176) is adjacent to the western perimeter of the site, under I-95, and the Industrial Enterprises site (MD-184) is near the site to the southeast.

The property that makes up the site is owned by six different parties (Section 2.1, Appendix I), so it has no one address. The site is situated on the U.S. Geological Survey 7.5' Baltimore East topographic quadrangle. Because the site is approximately one mile wide from east to west, two sets of Maryland and international grid coordinates were calculated based on two of the larger landfills onsite. For the original landfill on the western side of the site, the Maryland grid coordinates are 933,523' east and 536,309' north; the international coordinates are 76°31'43" west longitude and 39°18'18" north latitude. For the second ("island area") landfill, the Maryland grid coordinates are 936,712' east and 537,617' north; the international coordinates are 76°31'04" west longitude and 39°18'31" north latitude.

To reach the site from MDE, take I-95 north to Exit 61 (U.S. Rt. 40/Pulaski Highway). Turn right on Rt. 40 and make a right at the second light, which is 68th Street. Follow the street, which becomes Lake Road, over two sets of railroad tracks and bear left onto an access road that leads to the eastern side of the site (Figures 1 and 2).

To reach the western side of the site where the original landfill is located, turn right from 68th street onto Biddle Street and follow it to the end (62nd street). Walk straight ahead across the property at the end of Biddle Street owned by Baltimore County, and then walk left to the CSXT railroad tracks. Cross the railroad trestle over Moore's Run and descend to the landfill. CSX (Chessie Systems) Transportation requires advance permission to cross its property.

Three structures are located along the access road on the eastern side of the site: Browning-Ferris Industries (BFI); a large wood building in poor condition that is adjacent to BFI and the location of a former incinerator; and the M.F. Winstead facility, which is situated on the old R.M. Winstead site (MD-133) (Figure 5). There is one groundwater well on the leased BFI property (Section 2.1) that is used for non-potable purposes.

South of BFI is the Baltimore County Redhouse Run Pumping Station. Here, a large pipeline crosses over Herring Run and then runs under the "island area" landfill.

Closer to the center of the site, about 200 feet south of the railroad tracks, is a small abandoned building with a PCB label warning. This building was a former transmitter station for WEBB radio during the 1960's. A satellite dish and scattered metallic and electronic debris were present. South of the building is a marshy area. There is a broken pipeline that runs from this building toward three large radio towers located to the west in the center of the site. This "pipeline" was a cover for cables that appeared to lead toward the towers.¹¹

There are no buildings on the western side of the site, only the former landfill.¹² One monitoring well is located near the border of the Colgate Pay Dump and the original landfill (Parcel 340, Appendix A, Map 2). This well, identified as BC-88-0137, was installed during the SI on the Colgate Pay Dump.¹³

With the exception of the BFI and Winstead properties, almost the entire site was moderately to heavily vegetated during the site visits. This vegetation includes woods, marshes, tall grasses and brush. Areas less heavily vegetated are located near the CSXT railroad tracks, along Herring Run, at the radio towers, and on parts of the original (western) landfill where trespassers have made dirt bike trails and go "four-wheeling".

On the northwestern side of the site is a residential area, Maryland Manor, and on the northcentral side are commercial businesses. Directly west of the site is property owned by the City of Baltimore that includes the Colgate Pay Dump, and land leased to the Pulaski Company (Incinerator). To the east of Redhouse Run is another residential development, Chesaco Park. South of the Herring Run, along Quad Avenue, are a number of commercial firms. At the end of Quad Avenue is an area of "escaped" property (i.e. not assessed for taxation) on which there is open dumping.¹⁴

There are six surface water bodies associated with the site (Section 3.2). In general, the direction of surface water runoff is toward Herring Run, Redhouse Run, and the onsite pond (Figure 5). Overall, the terrain slopes gently towards Herring Run. Most of the site is situated on the 100 year floodplain.¹⁵

A storm drain near the railroad tracks and a drainage ditch leading to Moore's Run were identified in an earlier study¹ but could not be located for sampling during this PI-ESI (Figure 7). Instead, a drainage culvert opposite the original landfill that empties into Herring Run was sampled.

The site is unfenced and accessible to the public. Many signs of trespassing were observed during the site visits.

2.1 Site Use

Mr. Robb Tyler operated a number of permitted landfills onsite during the 1950's and 1960's (Section 2.2). The landfills appear to have received municipal and industrial wastes, including one or more of the following: liquids from vacuum trucks, 55-gallon drums, refuse, incinerator ash, and waste oils.

The first landfill is described as being south of the junction of the B & O railroad tracks (now CSXT) and Moore's Run and covering about 30 acres. At least part of this landfill corresponds to Parcel 340 of the current State Taxation and Assessment Map (Appendices A and B). The Landfill was operated from 1953-1956 by Robb Tyler, who held State Health Department Refuse Disposal Permit 11 (Map 2). Inspection reports prepared by the Department during this period indicate that there were numerous citizen's complaints, and problems such as uncontrolled fires, improper disposal of oil in open lagoons, water pollution problems from discharge of oil and refuse to Herring and Moore's Runs, and inadequate covering of refuse.

In 1956, Robb Tyler obtained a lease from Industrial Enterprises, and disposed of waste on this site (now Parcel 16) (Appendix C).

Robb Tyler was issued permits in 1957 and 1960 to operate landfills on his property (Attachment A, Parcel 151). Operations here included construction of a new office and garage complex, salvaging, landfilling, burning of refuse in an incinerator constructed by Mr. Tyler, and spreading uncooled ash from the City Incinerator.⁹ Again, there were complaints by area residents and problems concerning open burning and inadequate cover material. A shallow landfill was formed and briefly used in the field between BFI and Redhouse Run.¹⁶ A landfill is also present on the "island area" across Herring Run from the Baltimore County Pumping Station.

An aerial photograph taken in 1964 indicates the presence of a dump on property that appears to be adjacent to Robb Tyler's (Appendix D). Part of this area was sampled during the NUS Site Inspection (Section 2.1.1); a sample was also collected here during this study (Section 5.2.3). Mr. Tyler operated a shallow, "U"-shaped landfill around the radio towers for an unknown period of time in the mid-1960's.¹⁶

In 1969, the Baltimore County Health Department obtained a court order to end landfill operations. The refuse collection business operated by Robb Tyler was subsequently sold to Browning-Ferris Industries (BFI) in 1972. BFI currently rents the complex from the Tyler's and employs about 100 people. However, available information indicates that as late as 1978, wastes from a metal finishing company in Pennsylvania may have been transported to the site (Appendix E).⁹

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Mt. Clare Properties, Inc., a subsidiary of CSXT, leases part of its property (Appendix A) to Allied Media, which owns radio station WEBB, and to M.F. Winstead Company, Inc. M.F. Winstead is the son of R.M. Winstead, the latter of whom operated a waste oil collection facility in the mid-1970's (see MD-133). Before this operation, the site was the location of the La Crosse Chemical Company, which was destroyed by fire in the early 1970's. An architectural blueprint of this property done in 1956 shows the Maryland Brass & Metal Works building, which is no longer present, in the same general area (Appendices F & H). The operations of this firm are now unknown.

The M.F. Winstead facility is currently semi-active; it is mainly used to store trailers. There are large piles of gray slag here, and metal debris scattered throughout the leased property.

Observations made during the site visits indicate that trespassing and illegal dumping continue to occur due to unrestricted access.^{12,13,14,15} Metal debris, drums, soft drink and beer containers, a hypodermic syringe, and other refuse were observed, particularly in the vicinity of Herring Run. There are footpaths throughout Parcel 340 that were previously reported to be used by people on dirt-bikes. Empty drums were also seen in or next to Herring Run, Redhouse Run, and Moore's Run. Between May 31 (sampling location flagging) and June 2 and 3 (site sampling), the flags for SOILS 1-3, and SW/SED 9, 10, and 11 were removed.

During sample location flagging, people were fishing in Herring Run directly across from the "island area" landfill, part of Parcel 151, at the Baltimore County Pumping Station. This has apparently been going on for an unknown number of years.²⁰

Unauthorized dumping and evidence of burning were also observed on Parcel 405.^{12,13,14,15}

The ownership history of most of the parcels of land onsite is given in Appendix H.

2.2 Permits and Regulatory Actions

Mr. Robb Tyler held refuse disposal permits for sanitary landfill operations issued to him by the State Health Department between 1953 and 1965. Much of the waste was landfilled, but open dumping and burning of wastes occurred as well.

The permits issued to Mr. Tyler are listed below:³

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PERMIT NUMBER	DATE OF ISSUANCE	REMARKS
11	9-16-53	Operation of sanitary landfill (Part of current Parcel 340)
19*	12-27-55	Operation of sanitary landfill on land leased by the Franklin Realty Company (Industrial Enterprises) (Parcel 16)*
24	1-16-57	Operation of sanitary landfill and construction of garage (Part of current Parcel 151)
60-34-0374	5-24-60	Refuse collection and disposal service (same location as above)
65-33-0717	7-6-65	Operation of sanitary landfill

*This property was leased by Mr. Tyler and was previously evaluated in the SI for the Industrial Enterprises site (MD-184)

Inspection reports prepared by the State Health Department from 1953-1955 indicate that Mr. Tyler received orders to correct improper conditions at the original landfill (Permit 11), in part as a result of citizen's complaints. Operations of the landfills under Permits 24 and 60-34-0374 also resulted in complaints. (Section 2.1). No information is available on permit 65-33-0717.

2.3 Removal Actions

There have been two removal actions at the site. In 1984, personnel from the Maryland Waste Management Administration (MDWMA) found ten 55-gallon drums protruding from a hillside on the Tyler property that is now rented to BFI. The drums were removed by MWR, Inc., a licensed hazardous waste contractor. One drum contained paint sludge and was taken to a treatment, storage, and disposal facility.

In July, 1985, the Baltimore County Fire Department (BCFD) and the MDWMA responded to a fire on the "island area" of the former dump.⁹ Robb Tyler was contacted and agreed to extinguish the fire and coordinate a clean-up of the area. Air samples collected revealed the presence of benzene, toluene, o-xylene, methyl chloride, and 1,1,1 trichloroethane. In October, at least 40 55-gallon drums were excavated and removed from "drum island."³

3.0 Environmental Setting

3.1 Water Supply

The depth to the water table at the site is shallow (<10-30'), and the groundwater under the site is likely to be contaminated due to past waste disposal practices. Therefore, it should not be used for potable purposes. However, most of the residents within a four mile radius of the site rely on the Baltimore Municipal System, which obtains water from the Liberty and Loch Raven reservoirs located about ten miles northwest of the City.

An estimated 138 people located over one mile from the site obtain drinking water from groundwater.¹¹ Approximately 15 people located 0.5 - 1.0 mile southeast of the site are served by about six residential wells; five wells are located on Philadelphia Avenue. The sixth well is adjacent to the northern perimeter of the Batavia Landfill. Based on available geologic data, there is a potential for contamination of the Philadelphia Avenue wells by the site. However, these wells are in an urban area, and are also located downgradient of the Batavia Landfill (MD-175) and Gibson-Homans (MD-316). Four of the wells on Philadelphia Avenue were sampled by the Baltimore County Department of Environmental Protection in 1993, and the samples analyzed by the gas chromatography-mass spectrometry and multi-element laboratories at the Maryland Department of Health and Mental Hygiene (MDHMH). No organic contaminants were detected.

3.2 Surface Water

There are six surface water bodies associated with the site (Figure 4). Moore's Run, and an unnamed stream that flows from the area of a large pond traverse the site from north to south, and are located near the original (western) and second (eastern) landfill areas, respectively. Both of these streams flow into Herring Run, which borders the southern perimeter of the site, and in turn empties into the headwaters of the Back River. Another stream, Redhouse Run, which forms the eastern perimeter of the site, is also near the second landfill area and flows into the Back River.

Herring Run, the Back River, and possibly Redhouse Run are fisheries as defined by EPA.¹⁶ Several years ago, a fishing tournament was held on Herring Run directly south of the original landfill. Recreational fishing is known to occur on Herring Run and in the Back River, including the vicinity of Redhouse Run.¹³ Live and dead fish were observed in Herring Run, and a large dead fish was seen in the unnamed onsite stream during the initial site visits.¹² Small fish were seen in Redhouse Run,¹⁵ and in Moore's Run.¹⁴

Additionally, Moore's Run, Redhouse Run, and the Back River near the site are close to residential areas, and access to these surface water bodies, as well as to the site itself, is essentially unrestricted.⁷

The flow rate for the streams from visual observations made during the site visits is estimated to be as follows: Redhouse and Moore's Run, and the unnamed stream, <10 cubic feet per second (cfs); Herring Run and the headwaters of the Back River in the vicinity of the site, 10-100 cfs. The flow rate for Back River is 100-1000 cfs; the river in turn flows into the Chesapeake Bay, a coastal tidal surface water body.

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The surface water migration pathway for the site is given below:

<u>Surface Water Segment</u>	<u>Distance (stream miles)</u>	<u>Flow Rate (cfs)</u>
Unnamed onsite stream	0 - 0.3	10>
Herring Run-Back River	0.3 - 1.2	10-100
Back River	1.2 - 10	100-1000
Chesapeake Bay	10 - 15	N/A

There are several areas of wetlands on and/or adjacent to the site (Figure 8).⁶ In the area of Herring Run near the original landfill, riverine beach bar and palustrine emergent wetlands are present. Estuarine emergent and palustrine scrub/shrub wetlands border Redhouse Run; the former are also found next to Herring Run and the Back River. The unnamed, on-site stream is surrounded by palustrine emergent wetlands. The wetland frontages for the surface water migration pathway are as follows:

<u>Surface Water Segment</u>	<u>Wetlands Frontage (miles)</u>
Unnamed onsite stream	0.6
Herring Run-Back River	1.0
Back River	4.3
Chesapeake Bay	1.3

3.3 Soils

Three different soil types are recognized at the site. These are alluvium, loamy and clayey land, and man made land. The man made land consists of debris dumped into marshy areas. This type of land is so variable in its nature that a detailed study would be necessary to determine its characteristics. Alluvium consists of soil material washed from uplands and deposited on flood plains. This type of land is usually poorly drained and subject to frequent flooding. The loamy and clayey land has a hydraulic conductivity from 1.4×10^{-4} to 4.45×10^{-3} cm/sec, and an available water capacity that ranges from 0.12 to 0.24. The pH ranges from 4.0 to 5.0.²

3.4 Geology

3.4.1 Physiographic Province

The 68th Street Dump is located in the easternmost of the Maryland physiographic provinces, the Coastal Plain province. This Province is characterized by layers of unconsolidated sediments that range in thickness from 8,000 feet at the Atlantic coast to zero feet at the border of the adjoining Piedmont province. At the surface lies a veneer of Pliocene, Pleistocene and Holocene epoch sediments. Underlying these surficial sediments are older Tertiary through Cretaceous unconsolidated sedimentary strata that slightly dip and thicken towards the southeast. The oldest of these sediments, the

Patuxent Formation, overlies the crystalline bedrock of the Piedmont complex. The border between the Piedmont and the Coastal Plain provinces, called the Fall Line, although hard to delineate, lies approximately one mile northwest of the site. All the Coastal Plain formations subcrop in northeast-southwest striking belts.

There are five lithologic formations that are related to the site (Figure 9). These are, from oldest to youngest, the Piedmont complex, the Patuxent, the Arundel Clay, the Patapsco, and the recent deposits. The Patuxent, Arundel Clay and Patapsco are often described together as the Potomac Group. This grouping of these three formations is significant because they were deposited in a river-delta environment. This means that individual lithologic units are not readily traceable, even over short distances, because the sediments have little lateral continuity. The geologic map of Baltimore County shows all five formations outcropping at the site (Figure 10). All these formations are described here in general terms.^{21,22}

The Piedmont Basement Complex consists of metamorphosed sedimentary and igneous rocks. Any porosity found in this formation is secondary in nature, that is, porosity is due to fracturing within hard rock. The basement can be considered an aquiclude in this area. It is difficult to estimate the depth to bedrock at this site without a seismic survey. Basement depths could extend anywhere from 20 feet in the eastern portion of the site to close to 300 feet in the western end of the site.^{21,22,45}

The Patuxent consists of a quartz-rich sand and gravel, interbedded with discontinuous lenses of clayey silt. Iron oxide cementation is common in the outcrop area.²⁰ In Baltimore County the formation outcrops in a zone one to four miles wide.²¹

The Arundel Clay consists of variegated layers of clay with sand lenses. The clays are predominately illite and kaolinite.²⁰

The Patapsco Formation consists of quartz sand, interbedded with lenses of kaolinite and illite clay.

The recent deposits include both Pleistocene, Pliocene, and Holocene epoch deposits. These consist of quartz sand, gravel, silt, and kaolinite and illite clay.

3.5 Groundwater

Groundwater is used by a small number of residents within four miles of the site for domestic purposes. Within 0.75 mile of the site there are about 4 to 6 groundwater wells (Section 3.1). There is no significant groundwater use upgradient. All the aquifers described here either outcrop at the site or downgradient of it.²⁴

The Patuxent formation serves as the only significant aquifer in Baltimore County. Only a portion of this formation serves as an aquifer. The term Patuxent aquifer generally refers to that portion of the formation, i.e. a particular facies, which was deposited by braided streams and consists of coarse, well sorted sands and gravels that have high permeability. This aquifer was pumped extensively since the 1850s. In 1945 the potentiometric surface was mapped and several cones of depression identified. One of the most severe was in the Back River area immediately south of the dump site. Since that year, aquifer use has steadily decreased and by 1982 the potentiometric head had risen approximately 40 feet.

The drop in potentiometric head away from the outcrop area indicates that recharge is from that area, and initially from atmospheric precipitation. The presence of surface water in the outcrop area indicates that this is also a likely source of recharge for this aquifer. One estimate, based on a regional digital simulation, gives recharge to the Patuxent at 2 inches per year. The cumulative sand thickness of this aquifer, deduced from gamma logs, probably does not exceed 200 feet in thickness. Transmissivity in the site area was determined at 2270 feet squared per day increasing to over 4000 a mile south of the site. Storativity for the whole aquifer ranges from 0.00019 to 0.000038.²⁰

The Arundel Clay serves as a confining layer for the Patuxent. Well logs from the site area indicate this layer extends from 60 to over 150 feet within a half mile of the site (Appendix K). As mentioned above this unit outcrops in the area and hence does not exist in the area where the Patuxent outcrops, i.e. those areas where the Patuxent is unconfined (see Figure 9 cross-section). In some areas under the Harbor area of Baltimore the Arundel has been breached. This provides a conduit through which water may discharge into or out of the Patuxent aquifer.^{21,23,25}

The Patapsco aquifer coincides with the sand facies of the Patapsco formation. In Baltimore County this includes almost the entire formation. Around the turn of the century this aquifer was extensively used, however because the Patapsco subcrops extensively underneath the Patapsco River, chloride contamination became a major problem in the early part of the century. Currently there is no major use of this aquifer in the County. Where the potentiometric head is greater in the Patuxent than in the Patapsco there is leakage from the Patuxent through the Arundel to the Patapsco. The converse is true where the head is greater in the Patapsco, otherwise recharge is from the surface. This aquifer probably does not exceed more than a few feet in thickness in the site area, where it is even present. Where it is present it is indistinguishable from recent surface sediments.²⁰

The recent sediments, as stated above, form a veneer over the formations of the area. These sediments, for the most part, do not obstruct the flow of groundwater to underlying formations.²³

3.6 Meteorology

The net annual precipitation is eight inches. This is based on an annual precipitation in the site area of approximately 42 inches and a mean annual lake evaporation of approximately 36 inches. The two year 24 hour precipitation is 3.5 inches.^{26,27,28}

3.7 Nearby Land Use and Population Distribution

An estimated 167,028 people live within a four mile radius of the site.^{7,17} The distribution of this population is given in the table below:

Distance Ring (Miles)	Population
0 - 1/4	261
1/4 - 1/2	733
1/2 - 1	4119
1 - 2	24911
2 - 3	33302
3 - 4	83682
TOTAL	167028

An additional 104 employees are estimated to work onsite

This population estimate was obtained by counting houses on USGS topographic maps, and from census data for Baltimore City and Baltimore County.^{7,17} The average number of persons per dwelling is 2.4 for Baltimore City, and 2.5 for Baltimore County, based on 1990 census data. The information taken from the topographic maps was updated by comparing the percentage of change in population between 1970 and 1990.

The nearest regularly occupied building to any source at the site is Browning-Ferris Industries, which employs approximately 100 people. Also, about four employees of Baltimore County were working at the Pumping Station during site sampling.^{15,31}

There are no persons known to be living, or attending school or day care within 200 feet of any area of contamination.^{7,12} However, there are many signs of trespassing on the site property.

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There are an estimated 23 acres of palustrine emergent, forested and scrub/shrub, and estuarine beach bar and emergent wetlands onsite, and four additional acres of palustrine forested and scrub/shrub within 0-1/4 mile. There are about 12 acres of riverine beach bar and estuarine emergent wetlands within 1/4-1/2 mile of the site.⁶ No terrestrial sensitive environments are known to exist onsite. During the site visits, a variety of fauna including songbirds, waterfowl, fish, groundhogs, and turtles were observed.

4.0 Waste Description

Sources on the 68th Street Dump Site include former landfills, areas of open burning and dumping, and a former radio transmitter station.

The first landfill, which is approximately 22 acres and part of current Parcel 340 (Appendix A), was operated by Robb Tyler who held State Refuse Disposal Permit 11. Wastes handled at the landfill from about 1953-1956 were predominantly industrial. Photographs and inspection reports covering the active period of the landfill show and describe numerous waste oil pits and drums, and dumping of unknown wastes from vacuum trucks.³ During the site visits for this study, empty drums, appliances, cars, an old crane, and trash were observed. It is evident that this area is still being used by trespassers for waste disposal.

In 1956, Mr. Tyler's waste disposal operations shifted to an area that he leased from Industrial Enterprises (Appendix C). This landfill, which operated under Permit 19, was not considered in this study. It appears to have been evaluated in the Site Inspection for Industrial Enterprises, Inc. (MD-184).¹²

From 1957 to about 1961, a third disposal operation occurred on property owned by Mr. Tyler that included Parcel 151. Mr. Tyler was issued permits 24 and 60-34-0374 (Section 2.2). Activities here included landfills, incineration of unknown wastes and spreading hot ash on the nearby land, and the disposal of 55-gallon drums containing volatile organic compounds and heavy metals which were removed in 1984-1985.

A final permit issued in 1965 (65-33-0717) authorized Mr. Tyler to operate a sanitary landfill near 66th Street. The exact location of the landfill is unknown. It was apparently a shallow landfill shaped in a "U" that extended around the radio towers.¹⁶ The types of waste disposed here are unknown.

Phase I Site Assessments performed for Allied Media by Radian Corporation in 1991 state that there was no evidence of leaks or spills of PCB-containing oils from the radio towers. However, no sampling was done during the Assessments to confirm these

observations (Appendix G). During the PI-ESI, the dense vegetation made any reliable observations impossible.

A former radio transmitter building for WEBB Radio Station is onsite and houses empty transformers and two 10-gallon containers of PCB-contaminated oils. WEBB is currently owned by Allied Media, who leases the property from Mt. Clare Properties, Inc. These wastes are to be removed in 1993 and a copy of the manifest will be sent to MDE.³⁰ During the site visits, the building was surrounded by electronic debris, and there was a broken white pipeline containing electrical cables that ran from the building toward the towers.

Also evaluated as a part of this study is the former R.M. Winstead Site (MD-133) that was active in the mid-1970's as a waste oil recycling facility. The general area of this site was also the former location of the La Crosse Chemical Company, which produced resins, and the Maryland Brass and Metal Works. The waste disposal practices associated with these two facilities are unknown. An earlier study of MD-133 indicated the presence of arsenic, mercury, lead and other heavy metals in onsite soils and sediments.¹⁰ Currently, the 3.5-acre site is leased by M.F. Winstead, who uses it for storage of trailers. During the site visits, sizeable quantities of debris and a large pile of gray slag were also seen.

Browning-Ferris Industries (BFI), a refuse collection business, leases Parcel 151 and/or Parcel 403 from the Tyler family. However, BFI's operations have not involved onsite disposal, storage, or handling of hazardous wastes since it purchased Robb Tyler, Inc. and began leasing the property in 1972.³¹ Trash trucks are washed onsite, which may contribute to some soil contamination.

Open dumping of wastes was also observed on Parcel 405, especially near the railroad tracks. Evidence of illegal burning (grey ash), stained soil, and dead vegetation were observed as well (see photodocumentation).¹³

Parcels 9 and 213 were not sampled during this study because the dense vegetation made a thorough reconnaissance impossible. There is no known information available to verify that the disposal of hazardous wastes on these properties occurred at present. However, on December 21, 1993, the Project Manager and Project Geologist did a reconnaissance of these two parcels in an effort to determine if hazardous wastes are present. No evidence of hazardous waste on Parcel 9 was observed, although nuisance dumping is a problem. On Parcel 213, deteriorated drums and pails and blue-stained waste were observed, as well as nuisance dumping. The blue-stained waste may correspond to sample AOC-RT-005 collected during the Preliminary Assessment (Section 5.1.2). The terrain is also uneven on Parcel 213, but it was not possible to determine if this is due to former landfilling or simply natural processes.⁴⁶

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5.0 Site Sampling

5.1 Previous Studies

5.1.1 Site Inspection

A Site Inspection of the 68th Street Dump conducted by the NUS Corporation included the collection of nine aqueous and solid samples from an on-site well, soil, and sediments and surface water in August, 1984.¹ The location of these samples and the media from which they were taken is shown in Figure 7.

An on-site well at Browning-Ferris Industries (BFI) was sampled and contained no contaminants at levels of toxicological concern. Water from this well is used to wash company vehicles and by employees washing their hands; it is not used for drinking.¹³

An aqueous sample collected from an on-site pond was contaminated with the following substances ($\mu\text{g/L}$): trichloroethene (8.4), chromium (58), copper (66), lead (199) and zinc (240). A pond sediment sample also contained chromium (67.5 mg/Kg), lead (246 mg/Kg), zinc (151 mg/Kg), arsenic (0.69 mg/Kg), and nickel (22 mg/Kg). The levels of copper, lead, zinc, and possibly chromium (if present as Cr+6) exceed the Ambient Water Quality Criteria (AWQC) recommended for the protection of aquatic life.² Organic contaminants commonly associated with urban areas that were present in the pond sediment were PAHs (to 811 $\mu\text{g/Kg}$) and phthalates (to 2500 $\mu\text{g/Kg}$).

A small water body referred to in the SI as "pond discharge" leading from the pond to Herring Run was also sampled. No significant contamination was detected in an aqueous sample, but PAHs including benzo(a)anthracene (510 $\mu\text{g/Kg}$) and benzo (b or k) fluoranthene (1100 $\mu\text{g/Kg}$) were present in a sediment sample, as well as 23 $\mu\text{g/Kg}$ of dieldrin. Zinc and nickel were also detected at 93.8 mg/Kg and 10.8 mg/Kg, respectively, in the sediment sample.

A soil sample designated as Auger 1 was taken at the site. The exact location of this sample is unclear due to conflicting information in the SI Report. Contaminants found in this sample included Arochlor 1242 (a PCB) (2000 $\mu\text{g/Kg}$), lead (1370 mg/Kg), and zinc (1300 mg/Kg). A composite soil sample was also collected from a waste ("parking") pile near the BFI facility and contained elevated levels of PAHs and phthalates, including benzo(a)pyrene (8800 $\mu\text{g/Kg}$).

Aqueous and sediment leachate samples were collected adjacent to what appears to be an on-site drainage ditch to Herring Run. The sediment sample contained PAHs to 2300 $\mu\text{g/Kg}$ (benzo b or k fluoranthene) and 211 mg/Kg of lead.

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Contaminants of potential toxicological concern in this study are Arochlor 1242 and the pesticide dieldrin. Both of these contaminants are persistent, toxic, and potentially carcinogenic. Additionally, PAHs such as benzo(a)pyrene and benzo(a)anthracene have produced tumors in laboratory animals. Noteable levels of lead and zinc were detected in soil, leachate, and pond samples. Leaching of these and other contaminants into underlying groundwater and other surface waters near the site is therefore possible. Residents in the immediate vicinity of the site do not use groundwater for potable purposes. However, as stated previously, there is a potential for adverse effects on aquatic life located in surface waters near the site.

Sampling for the site inspection was not conducted in all areas of the site where disposal had occurred. Therefore, additional sampling was done by the Maryland Waste Management Administration (MDWMA) in the subsequent preliminary assessment.

5.1.2 Preliminary Assessment

Sampling was conducted by the MDWMA in February, 1985 at the locations shown in Figure 6. Most samples collected were from exposed drums and surface deposits of wastes exposed by erosion of the landfill. However, no samples were taken to characterize the sources, or from on-site wetlands and nearby fisheries.

The samples collected during the PA, and the materials that were sampled, are given in the following table.

Table 1

Sample Number	Sample Description
AOC-RT-001	Standing pool of water at base of Colgate Dump
AOC-RT-002	Sealed pool of water near Colgate Dump
AOC-RT-003	Leachate seep from left bank of Moore's Run
AOC-RT-004	Second sample from above location
AOC-RT-005	Blue/white surface sludge
AOC-RT-006	Suspect chromium sludge from drum
AOC-RT-007	Suspect chromium sludge from second drum
AOC-RT-008	Composite from refractory brick pile
AOC-RT-009	Blue/white salt from exposed drums
AOC-RT-010	Slag material from exposed drum
AOC-RT-222-1	Multi-colored material exposed by erosion
AOC-RT-222-2	Blue powder exposed by erosion
AOC-RT-222-3	Gray slag from exposed drum

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AOC-RT-222-4	Yellow material from landfill surface
IE-001	Crushed 55-gallon drum in ground
IE-002	Second crushed 55-gallon drum in ground
IE-003	Embedded 55-gallon drum
IE-004	Second embedded 55-gallon drum
IE-005	Stream bank along Herring Run

Samples AOC-RT-003 & 004, and IE-001 to 005 were analyzed for metals and volatile organic compounds. All other samples were analyzed for metals only.

The solid samples in which contaminants were detected and the levels present are identified below:

Table 2

Sample Identification	Contaminant(s)	Concentration (units)
AOC-RT-005	total chromium lead	78.4 ppm* 29.7 ppm*
AOC-RT-006	chromium + 6 lead	231 ppm** 56 ppm**
AOC-RT-007	chromium + 6	19.7 ppm**
AOC-RT-009	chromium arsenic	2880 ppm* 3.6 ppm*
AOC-RT-222-2	lead	9.1 ppm**
AOC-RT-222-4	chromium + 6 total chromium	4.0 ppm** 7.4 ppm**
IE-001	arsenic chromium lead nickel zinc	7.46 ppm* 48.3 ppm* 28.6 ppm* 2759 ppm* 51232 ppm*
IE-002	toluene ethylbenzene total xylenes cadmium chromium lead nickel zinc	200 ppb 310 ppb 270 ppb 89.8 ppm* 1855 ppm* 8105 ppm* 781 ppm* 317 ppm*
IE-003	lead zinc	6.4 ppm* 245 ppm*
IE-004	toluene ethylbenzene total xylenes lead	2800 ppm 16780 ppm 92270 ppm 9.9 ppm*

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IF-005	methyl ethyl ketone	400 ppb
	methyl isobutyl ketone	74 ppb
	copper	97.3 ppm*
	chromium	217 ppm*
	arsenic	21.9 ppm*
	lead	850 ppm*
	cadmium	163 ppm*
	zinc	1403 ppm*

*Total metal analysis in ppm

**Extraction Procedure (EP) toxicity metals in ppm

5.1.3 Level I Site Inspection Prioritization (SIP)

This study was done in May, 1992. It involved no sampling, but included a review of available information, a target survey⁷ and an identification of potential contaminants of concern. Based on the findings of this SIP, the Phase I ESI was authorized by EPA.

5.2 MDE/WAS Contract Laboratory Sampling

Before sampling the site, the MDE/WAS CERCLA Site Assessment Division submitted a sampling plan to the USEPA Region III in March, 1993. This plan was revised on May 14, 1993 to change the method of deep soil sampling (e.g. >2') from a drill rig to a hand auger due to the inaccessibility of the rig by feasible means. This revision was approved by EPA on May 18, 1993. A final sampling plan reflecting all needed modifications has been prepared and submitted to EPA.

Samples were collected from the groundwater, sources, soil, and surface water on and near the site on June 2 and 3, 1993. These samples were collected and submitted for analysis as Case Number 20101 in accordance with the USEPA Contract Laboratory Program (CLP) Routine Analytical Services (RAS). The samples were analyzed for the Target Compound List (TCL) of organic compounds, including pesticides and PCB's and the Target Analyte List (TAL) of inorganic substances.

The samples were collected in four sample matrices: one organic aqueous, two organic solid, one inorganic aqueous, two inorganic solid. The Standard Operating Procedures for Field Operations contained in MDE's Quality Assurance Project Plan (Appendix B) were followed as appropriate.

CLP protocol was adhered to throughout the sample collection and submittal process (U.S. "User's Guide to CLP," Dec. 1988). The Quality Control (QC) used by MDE includes the submittal of a field duplicate for each matrix as defined above. Since a maximum of twenty samples are permitted per matrix, two duplicate solid samples were collected.

In addition, each matrix had one sample designated as the spike

sample, which was collected at specified additional volumes in order to provide the laboratories sufficient sample volumes for CLP matrix spike QC procedures. Specifically, the following additional volumes, including both the spike volume and the corresponding spike duplicate volume, were to be collected (volumes expressed as multiples of the regular sample volume of 1):

<u>Sample Matrix</u>	<u>Spike Volume</u>
Organic Aqueous	3
Organic Solid	2
Inorganic Aqueous	2
Inorganic Solid	1

Samples were shipped daily to the appropriate inorganic and organic labs. A field blank was prepared for the aqueous matrices. This blank consisted of deionized water provided by the Maryland Department of Health and Mental Hygiene (MDHMH) Laboratory. This water was transported to the field in 5-gallon containers, and then transferred in the field on the first day of sample collection to the appropriate sample containers. An aqueous volatile organics analysis (VOA) trip-blank sample was included with the organic shipment on the second day. The trip-blank consisted of deionized water, fixed with HCL and contained in VOA sample containers.

The sample collection log is shown in the following tables, and the sampling locations appear in Figure 3.

Sample Number	OTR#	ITR#	Sample Location	Sample Type	Remarks
SW-1 SED-1	CKW44 CKW18	MCJ844 MCJ818	Unseamed on-site stream - north	aqueous sediment	
SW-2 SED-2	CKW45 CKW19	MCJ845 MCJ819	Unseamed on-site stream - north	aqueous sediment	
SW-3 SED-3	CKW46 CKW20	MCJ846 MCJ820	Redhouse Run (on-site)	aqueous sediment	orange stained lactate
SW-4 SED-4	CKW47 CKW21	MCJ847 MCJ821	Redhouse Run NE of site	aqueous	background spike
SW-5 SED-5	CKW48 CKW22	MCJ848 MCJ822	Herring Run East	aqueous	
SW-6 SED-6	CKW49 CKW23	MCJ849 MCJ823	Redhouse Run - Herring Run	aqueous	
SW-7 SED-7	CKW50 CKW24	MCJ850 MCJ824	Moore's Run - on-site	aqueous	
SW-8 SED-8	CKW51 CKW25	MCJ851 MCJ825	Moore's Run NW of site	aqueous	background-refuse 100yd. upstream
SW-9 SED-9	CKW52 CKW26	MCJ852 MCJ826	Herring Run West - 1	aqueous	orange-red stained sediment

SW-10 SED-10	CKW33 CKW27	MCJB33 MCJB27	Herring Run West - 2	aqueous	same as above-not as dark
SW-11 SED-11	CKW34 CKW28	MCJB34 MCJB28	Herring Run - south of Colgate Pay dump	aqueous	background
SW-12 SED-12	CKW35 CKW29	MCJB35 MCJB29	Offsite drainage culvert	aqueous	collected south side Herring Run
SW-13 SED-13	CKW36 CKW30	MCJB36 MCJB30	SW-5 SED-5		duplicate
GW-1	CKW39	MCJB39	BFI Facility	aqueous	head pump
BLK-1	CKW37	MCJB37	N/A		field blank
BLK-TP1	CKW38	N/A	N/A		trip blank

Sample Number	OTR#	ITR#	Sample Location	Remarks
Soil-1*	CKW31	MCJB31	First landfill north (cross)	see map 3
Soil-2	CKW32	MCJB32	First landfill central	see map 3
Soil-3*	CKW33	MCJB33	First landfill central	see map 3
Soil-4	CKW34	MCJB34	First landfill south central	
Soil-5*	CKW35	MCJB35	North of Site (western side)	background
Soil-6*	CKW36	MCJB36	North of Site (western side)	background
Soil-7	CKW37	MCJB37	Eastern landfill	
Soil-8	CKW38	MCJB38	Eastern landfill	
Soil-9*	CKW39	MCJB39	Small shed-roof building (PCBs)	
Soil-10	CKW40	MCJB40	M.F. Wintland Company, Inc.	
Soil-11*	CKW41	MCJB41	Browning-Ferris Industries (BFI) east	composite
Soil-12*	CKW42	MCJB42	BFI (west)	
Soil-13*	CKW43	MCJB43	Soil 1	duplicate
Soil-14*	CKW60	MCJB60	Broken pipeline- behind building	
Soil-15*	CKW61	MCJB61	P.405, north radio towers	
Soil-16*	CKW62	MCJB62	Dowhill Soil 4	composite to 2'

*collected at a depth of less than two feet

Soils-1/13,3,6,11, and 16 were to be collected at a depth greater than two feet. However, due to impenetrability (1/13 & 6), refuse (3,11), and water (16), this was not practicable.

The samples were packaged onsite and transported to Federal Express on each day of collection for shipment to the following laboratories:

Organic Matrices

Envirosystems, Inc.
9200 Rumsey Road
Suite B102
Columbia, Maryland 21045
Attn: Susan Pearce/Lisa Lazzell
(410) 964-0330

Inorganic Matrices

Skinner and Sherman
300 Second Avenue
Waltham, Massachusetts 01605-2647
Attn: David Toupin
(508) 753-3738

The field blank BLK-1 did not contain any organic contaminants at reportable levels; the trip blank, BLK-TP1 contained methylene chloride (4 ug/L J). Where the level of methylene chloride in site samples exceeded 10X the level detected in the blank it was reported.³³

The following inorganic substances were detected in BLK-1 (units in ug/L): Al (1720), Ba ([5.8]), Ca ([1320]), Fe (207), Mg ([395]), Mn (45.4), Na ([380]), and Zn ([13.1]). These substances were likewise present in some of the samples; the detected levels are reported in Attachment I.¹⁴

A discussion of the quality control laboratory blanks is included in Attachments I and II. The concentrations of contaminants in the laboratory (method) blanks were compared to those in the aqueous and solid samples collected. In Tables 1 - 5, each of the contaminant that exceeded 3X the background level is notated with an asterisk.

5.2.1 Groundwater Samples and Results

One groundwater sample (GW-1) was collected from a hand pump on the BFI parking lot. This pump, a Simmons Frost Free Yard Hydrant, draws water from a well located east of the access road near the northern boundary of the BFI property. The total depth of the well is about 125.' Water from the well is used for washing vehicles and

by BFI employees washing their hands but not for drinking. It was sampled during the NUS SI done in 1984; at this time no contaminants were identified at levels of concern.

The purpose of sampling this well during the present ESI was to determine if migration of contaminants to groundwater has occurred that might pose a threat to worker health via dermal and inhalation exposure. There were no known domestic wells within a two mile radius of the site from which to collect a suitable background sample.

No organic contaminants in GW-1 were detected substantially above the level reported in laboratory or field blanks. Inorganic substances detected (ug/L) are: barium (49.6); calcium (10000); potassium (2910); magnesium ([2030]); and sodium (118000).

Sampling of four residential wells was performed by the Baltimore County Department of Environmental Protection in September, 1993. The samples were analyzed by the Maryland Department of Health and Mental Hygiene (MDHMH) Gas Chromatography-Mass Spectrometry and Multi-Element Laboratories. The results are given in Appendix K. One well contained 70 parts per billion (ppb) of lead, which exceeds the action level of 15 ppb. This well will be resampled and the sample analyzed for lead.

5.2.2 Surface Water Samples and Results

Twelve (12) aqueous and sediment samples (designated SW/SED 1-12) were collected from different locations to determine if contamination of nearby or onsite wetlands and/or fisheries has occurred. SW/SED 13 was a duplicate of SW/SED 5, and SW/SED 4 was the matrix spike sample.

The results for the inorganic sediment and aqueous samples are given in Tables 2 and 3, respectively (ug/L), and in Attachment I. SW-1, which was collected from the unnamed onsite stream, contained eight contaminants at levels which were greater than 3X the background samples. These included arsenic (6.8K), copper (59.5), iron (12600) and lead (157). SW-2 and SW-9 contained cyanide in concentrations of 45.2 and 35.8 ug/L, respectively.

Cadmium, copper, lead, and cyanide exceeded the Ambient Water Quality Criteria (AWQC) for the protection of aquatic life from acute and chronic toxicity in one or more aqueous surface water samples.² Iron exceeded the AWQC of 1000 ug/L in five aqueous samples³ (Table 3).

Mercury was present in sediment samples at greater than 3X background levels in the following samples (mg/kg): SED-1 (0.55), SED-2 (0.21), SED-5/SED-13 (0.69/0.46), and SED-6 (0.28). Elevated levels of lead and arsenic were detected in SED-1 and SED-5/SED-13

(Table 2).

No organic contaminants were detected in aqueous samples significantly above field blank levels, or above the contract required method detection limits.

Organic contaminants detected in sediment samples at concentrations (ug/kg) greater than 3X the background sample(s) include (Table 5):

<u>Sample Numbers</u>	<u>PAHs</u>
-----------------------	-------------

SED-1,2,5/13,6	Benzo(a)Anthracene Fluoranthene Chrysene
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SED-9	Toluene
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SED-1 & 2	Benz(a)Anthracene Benzo(a)Pyrene Benzo (g,h,i)Perylene Fluoranthene Indeno (1,2,3-cd)Pyrene Phenanthrene Pyrene bis(2-Ethylhexyl)phthalate
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SED-7	Methoxychlor
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Therefore, observed releases and actual contamination were established for a fishery, and for wetlands (Figures 3 & 8).

5.2.3 Soil/Source Samples and Results

The site is located near residential and commercial areas in an urban setting. Many signs of trespassing, especially illegal dumping, were observed.

Four landfills at this site apparently received unknown types of industrial wastes from Baltimore that have never been completely characterized. These landfills are located in or near marshy areas and close to on-site surface waters. The depth to which the landfills were excavated is unknown, but the depth to the groundwater at the site has been estimated to range from <10-30.' In general, the direction of shallow groundwater flow is toward the surface waters.

A total of 16 soil samples were collected, including two background samples and one duplicate sample.

The background samples, SOILS-5 and 6 were collected from a small isolated field owned by Baltimore County located just northwest

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(upgradient) of the site and the CSXT railroad tracks. Maximum levels of inorganic substances (mg/kg) include arsenic (3.9L), lead (201J), mercury (0.28), chromium (29.3J) and zinc (77.0) (Table 1). Bis(2-Ethylhexyl)Phthalate (140J ug/kg) and benzo(b)fluoranthene (170J ug/kg) were the only organic contaminants detected (Table 4).

Six samples [(SOILS-1/13 duplicate), 2, 3, 4 and 16] were collected from the original landfill. Two samples were taken from the second (eastern) landfill on the Tyler property which is also identified as the "island area" (SOIL 7 & 8). SOIL 12 was collected close to the BFI building, and SOIL 11 was taken from the shallow landfill on property leased by BFI.

There is a small abandoned transmitter station located in the north-central area of the site on Parcel 405. SOILS-9 and 14 were collected here, mainly to determine the presence of PCBs, which were handled at this location.³⁰

A second facility, the 3.5-acre R.M. Winstead site (MD-133) is also present on the northeast corner of the 68th Street Dump property. The Winstead facility is supposedly located on or near the property where the former La Crosse Chemical Company building once stood before it was destroyed by fire in the early 1970's. It is also near the former Maryland Brass and Metal Works building. From about 1978-1986, Mr. Winstead leased the property for operation of his waste oil collection business from Chessie Systems Railroads (CSX Transportation).¹⁰ SOIL-10 was collected near this former facility, which is near Redhouse Run.

SOIL-15 was collected in the vicinity of the shallow landfill around the radio towers that was active in the mid-1960's, and may correspond to the "dump" area designated on the 1964 aerial photograph of the site. Stained soil and dead vegetation were present at this sampling location.

Tables 1 and 4 contain the data for the 14 soil samples collected to characterize the sources and/or the potential for human exposure from trespassing or working onsite.

Inorganic substances detected at levels greater than 3X background levels in two or more site samples include antimony (SOILS-1/13, 3, 9, 11), arsenic (SOILS-2, 3, 9, 11), cadmium (SOILS-1/13, 3, 7, 8, 9, 11, 12, 15), lead (SOILS-3, 9, 11, 15), mercury (SOILS-1/13, 7, 11, 15), zinc (SOILS-1/13, 2, 3, 7, 8, 11, 12, 15, 16) and cyanide (SOILS-11, 15). SOIL-4 contained no substances at greater than 3X the background concentrations.

The primary organic contaminants of potential concern include Arochlor-1260 (SOIL-3, 8, 9, 11), benzene (SOIL-11), methylene chloride (SOIL-8, 11), benzo(b)fluoranthene (SOILS-1/13, 2, 11, 12, 14, 15, 16), benzo(a)pyrene (SOILS-2, 11, 13, 14, 16),

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carbon disulfide (SOIL-7), chlordan (alpha and gamma) (SOILS-1/13,2,3,4,8,9,11,12), dieldrin (SOILS-7,15), tetrachloroethene (SOILS-3,11), and 4,4'DDT (SOILS 3,9).

6.0 Toxicological Evaluation

Summary

The 68th Street Dump is located just over the eastern city line of Baltimore near Pulaski Highway. It includes parcels of land formerly used as permitted landfills, and where past and current open dumping has occurred.

The nearest residences are located in Maryland Manor on the northwestern border of the site, and in Chesaco Park to the east of Redhouse Run. Commercial businesses are present on the north-central side of the site and south of Herring Run, along Quad Avenue.

There is one on-site well used by employees of Browning-Ferris Industries (BFI) for washing their vehicles and hands. It is not used for potable purposes. There is also a monitoring well located near the western side of the site that was drilled during the SI for the adjacent Colgate Pay Dump in 1984.

An estimated 138 people located within a one mile radius of the site obtain drinking water from groundwater sources. About 15 people located 0.5 - 1.0 mile southeast of the site are served by 6 residential wells; five of these are located on Philadelphia Avenue. However, there are no known domestic wells within a two mile radius of the site from which to collect a suitable background sample. The vast majority of the residents within a four mile radius obtain their water supply from Baltimore municipal systems.

There are 6 surface water bodies on the property. The largest, Herring Run, is a fishery which empties directly into the headwaters of the Back River. There is evidence of recent trespassing, open dumping and fishing in Herring Run. The Back River is used for fishing for human consumption.³⁸

In this investigation, samples were taken from surface water, groundwater, sediment and soil to identify the extent of contamination on and around the site. No contamination of the groundwater sample obtained at the pump used by BFI employees at levels of toxicological concern was identified.

Lead, iron, chromium, copper, cyanide, and zinc were detected in surface water samples at levels that exceeded the Ambient Water Quality Criteria (AWQC) for the protection of aquatic life from acute or chronic toxicity. Of potential concern is iron in aqueous samples, and both iron and lead in sediments at levels that exceed the EPA benchmarks for these substances. Sediment samples

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contained elevated levels of beryllium, lead and benzo(a)pyrene above EPA benchmarks for soil.

Soil sampling showed elevated levels of arsenic, beryllium, cadmium, chromium, copper, lead, manganese, polycyclic aromatic hydrocarbons (PAHs), and dieldrin above the EPA benchmarks. Lead was found in S-3 (2680 mg/kg), S-9 (2990 mg/kg) and in S-11 (1530 mg/kg), at levels that exceed EPA's target concentration of 500-1000 mg/kg in soil at hazardous waste sites. Exposure to lead in soil at these levels could pose a health risk to trespassing children.

The potentially exposed populations of greatest concern are trespassers and workers at BFI. No wells are used for drinking water at BFI or in the nearby communities. Therefore, exposure pathways relevant to this site are through ingestion of soil by trespassers and workers at BFI, and ingestion of fish caught from the fishable streams which border the site.

In the exposure scenario that was used for the site, the following assumptions were made to estimate worst-case exposure to soil and sediment by a site trespasser: a child trespasses on the site 150 days per year over an eight year period (ages 10 through 17), has an average body weight of 52 kg over the period, and ingests 100 mg of soil per day."

Based on the above assumptions, exposure to contaminants in sediment and soils resulted in a hazard index (for noncancer health risk) which was less than one (0.57). The total estimated cancer risk ($2.4E-6$) was also within the EPA's acceptable range of $1.0E-06$ - $1.0E-04$.

Of special concern is the impact of this site on wildlife, wetlands and the aquatic environment around and downstream of the site. It is known that the site is used for fishing by area residents. As shown in Figure 8, the site harbors two different types of wetlands including palustrine emergent and estuarine emergent areas. Six substances were detected in surface water in concentrations exceeding chronic Aquatic Water Quality Criteria (AWQC) for fresh water organisms. These include: chromium, copper, iron, lead and cyanide. Mercury was found in sediment samples in an on-site stream and in Herring Run. Although the levels of mercury are below the EPA benchmark for soil, this metal biomagnifies in fish and other aquatic organisms. There are no EPA benchmarks for sediment. Consequently, the potential for adverse ecologic effects, as well as adverse health effects to individuals ingesting fish, does exist. Data are currently insufficient to estimate the health risk to humans resulting from the consumption of fish in nearby streams. To estimate this risk, a quantitative analysis of mercury in fish tissue will be performed.

II. Supporting Data

A. Groundwater

A groundwater sample was taken from the well located on the BFI property, known to be used for washing of vehicles and by employees washing their hands. It is not used for potable purposes. No inorganic or organic contaminants at levels of toxicological concern were detected in the sample collected for this study (GW-1), or in the sample taken during the NUS SI.

B. Sediment

Among the sediment samples collected on-site, sample SED-1 collected downstream of the on-site pond and near BFI had some of the highest levels of inorganic contaminants. Lead was found to be elevated above the EPA's benchmark level in this sediment sample. Benzo(a)pyrene was found to be elevated in SED-2 taken from the unnamed stream coming from the pond. Beryllium was also found in SED-12 taken from a drainage culvert that empties into the south side of Herring Run, opposite the original Tyler landfill. SED-12 is a background sample, suggesting that this contamination is unrelated to the site. It should be noted that although exposure to sediment is assessed using the trespassers scenario, the scenario is more appropriate for use with soils as it is unlikely that exposure to sediment would occur with the same frequency and to the same degree as soil.

Lead

Lead is a naturally occurring inorganic element that is found in almost all soils and sediments; natural levels in soils in the eastern U.S. average 10 to 20 parts per million.⁴⁷ Signs and symptoms of lead toxicity depend on lead concentrations in the tissue and the age of the individual. Chronic exposure to low levels of lead can interfere with the blood forming and reproductive systems, kidney function and metabolism, and produce subtle effects on personality, memory, learning, reaction time, psychomotor function, and motor coordination. Infants and young children are very sensitive to the toxic effects of lead on the nervous system. Impaired neurological development has been observed in children exposed to relatively low concentrations of lead. At higher concentrations, lead is toxic to the central nervous system and can produce neurological motor dysfunction.⁴⁰ The EPA suggests that a target range of 500-1000 mg/kg for hazardous waste sites is acceptable. There is no oral RfD for inorganic lead so a daily exposure dose is not calculated.

Beryllium

Beryllium exposure can cause a number of adverse health effects that are well documented although its health effect on specific organ systems is unknown. The route of exposure most likely to produce adverse health effects is through inhalation. Acute toxicity usually resulting from exposure to large quantities such as during a spill, cause a distinct clinical entity called acute beryllium disease. With chronic exposure, a hypersensitivity occurs forming granulomas in lung tissue that are part of a syndrome called chronic beryllium disease. The effect of chronic exposure to low levels of beryllium on many organ systems, is unknown. Of note, ingesting low doses of beryllium does not appear to cause any adverse noncarcinogenic health effects.⁴¹ Beryllium is classified by the EPA as a group B2, probable human carcinogen. The USEPA's oral slope factor for beryllium is 4.3 (mg/kg/day)⁻¹. Given the exposure scenario and a concentration of 1.9 mg/kg found in SED-12, the excess lifetime cancer risk associated with beryllium exposure from sediment is 1.0E-7. This value does not exceed the EPA's acceptable risk range.

Polycyclic aromatic hydrocarbons (PAH's)

This group includes compounds that are both naturally occurring and formed by man during incomplete burning of coal, oil and gas, garbage, or other organic substances. There are over one hundred and fifty known PAHs. Exposure routes of concern include dermal contact and incidental ingestion, as well as possible, yet limited inhalation of fugitive dust. Because there are so many PAH compounds of similar chemical and physical properties, comparison values are only available for a representative group that have been studied collectively. These compounds are:

acenaphthene	chrysene
acenaphthylene	dibenzo (a,h) anthracene
anthracene	fluoranthene
benz(a)anthracene	fluorene
benzo(a)pyrene	indeno (1,2,3-cd) pyrene
benzo(b)fluoranthene	phenanthrene
benzo(ghi)perylene	pyrene
benzo(k)fluoranthene	

The following compounds have been shown to cause cancer in laboratory animals when administered orally (via food), dermally (on the skin), and by inhalation through air: benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene. Studies of long-term human exposure by inhalation have also shown elevated cancer associated with PAH exposure. Of these contaminants, benzo(a)pyrene is the most extensively studied and is thought to be the most potent carcinogen.⁴²

Of the sediment samples taken on the site, sample SED-2 taken from the small stream coming from the pond contained levels of benzo(a)pyrene at 700 micrograms/kg. This is elevated above the EPA benchmark. Given the exposure scenario listed and an oral slope factor of $7.3 \text{ (mg/kg/day)}^{-1}$, this would result in an excess lifetime cancer risk of $4.7\text{E-}8$. This level does not exceed the EPA acceptable risk range for carcinogenic health effects.

C. Soil

A number of areas throughout the site were found to be contaminated with both inorganic and organic chemicals. As in the sediment samples, lead, beryllium and a number of polycyclic aromatic hydrocarbons were detected. Arsenic was found in the samples taken from the original Tyler landfill (S-2 and S-3) and the shallow landfill on BFI property (S-11) at levels exceeding the EPA benchmark. Other metals found in on-site soils in concentrations which exceed EPA benchmark levels include cadmium (S-3), chromium VI (S-15), copper (S-1, S-2) and manganese (S-2, S-3). Dieldrin was also found in the U-shaped landfill surrounding the radio towers (S-15) and PAH's in one sample that came from the shallow landfill on BFI properties (S-11).

Beryllium

Beryllium was found in a soil sample taken from property next to BFI (S-12) at levels exceeding the EPA benchmark for this substance. Given the exposure scenario listed above, the level of 1.7 mg/kg found at site S-12 and an oral slope factor of $4.3 \text{ (mg/kg/day)}^{-1}$ would result in an excess lifetime cancer risk of $1.1\text{E-}7$. This value does not exceed the EPA's acceptable lifetime excess risk for carcinogenic health effects.

Cadmium

The highest concentration of cadmium detected in any of the soil samples was a level of 101 mg/kg in a sample (S-3) taken from the central section of the original Tyler landfill. Cadmium was also detected in 10 other on-site soil samples; however, it was not detected in the background sample. In humans, the main target organs for cadmium toxicity include the lungs (when inhaled), and the kidney and bones (ingestion). Cadmium is classified as a probable human carcinogen (Group B1) by the U.S. EPA, and is associated with an increased risk of lung cancer in workers chronically exposed by inhalation. The EPA has developed two oral RfDs for cadmium: a value of $5\text{E-}4 \text{ mg/kg/day}$ based on human exposure to cadmium in water, and a value of $1\text{E-}3 \text{ mg/kg/day}$ based on studies of humans exposed to cadmium in food.² Assumed oral exposure to the highest level of cadmium in soil detected on the site results in a

hazard quotient that is less than 1 (0.16).

Chromium

Chromium was detected in one soil sample (417 mg/kg) at a concentration which exceeded the EPA benchmark level (S-15). The toxicity of chromium depends on its chemical form, with the hexavalent form (Cr VI) considerably more toxic than the trivalent form (Cr III), which is an essential nutrient for humans. Cr VI is classified by the EPA as a known human carcinogen (Group A), having caused lung cancer in workers who were exposed to airborne chromium compounds for a relatively long time period. Oral exposure to sufficiently high levels of chromium can cause damage to the kidneys, and exposure to relatively small amounts of Cr III or Cr IV can cause allergic skin reactions in sensitive people. The EPA has developed an RfD for Cr VI of $5E-3$ mg/kg/day, based on a no effect level in rats exposed to chromium in drinking water for 1 year.² Assumed oral exposure to the highest level of chromium detected in on-site soil results in a hazard quotient that is less than 1 (0.07).

Copper

Copper is a naturally occurring metal which is an essential nutrient in humans. Exposure to sufficiently high levels of copper can cause adverse health effects. Two on-site soil samples (S-1 and S-2) had copper levels which exceeded the EPA benchmark level. EPA has developed an unofficial RfD for copper of $3.71E-2$.⁴ Assumed oral exposure to the highest level of copper in on-site soil results in a hazard quotient of 0.01.

Lead

Lead was found at the original Tyler landfill (S-3) at a concentration of 2680 mg/kg, at the small abandoned building on the north-central side of the site (S-9) at a concentration of 2990 mg/kg, and at the shallow landfill on BFI property (S-11) at concentrations of 1530 mg/kg. These levels exceed the EPA target range for hazardous waste soil of 500-1000 mg/kg. There is no oral RfD for inorganic lead so a daily exposure dose is not calculated.

Manganese

Manganese was detected in two on-site soil samples (S-2 and S-3) in concentrations which exceed EPA's benchmark level with the highest concentration an estimated level of 2060 mg/kg. Manganese toxicity has been observed in workers exposed to high levels of airborne manganese, with effects primarily on the central nervous system

(e.g., emotional disturbances, unnatural movement). Similar effects have been observed in people exposed to elevated manganese levels in drinking water. The EPA has developed an RfD of $5E-3$ mg/kg/day for manganese based on a no-effect level for human exposure to manganese in water.² Assumed oral exposure to the maximum level of manganese found on the site results in a hazard quotient of $3.3E-1$.

Polycyclic Aromatic Hydrocarbons (PAHs)

PAHs were also found in soil samples. Levels that exceeded the EPA benchmark were consistently found in the sample taken from the shallow landfill on BFI property (S-11). Since 5 different PAH's were elevated for this sample, the cumulative dose is tabulated below.

Poly Aromatic Hydrocarbon	Detected [] (micrograms/kg)	Relative Potency	Equiv. B(a)P [] (micrograms/kg)
Benzo(a)anthracene	11,000	0.145	1,595
Benzo(a)pyrene	8,800	1.000	8,800
Benzo(b)fluoranthene	20,000	0.140	2,800
Dibenz(a,h)anthracene	1,500*	1.110	1,665
Indeno(1,2,3,c,d)pyrene	4200	0.232	974
Total	.		15,834

* estimated value

Applying this cumulative dose to the exposure scenario and oral slope factor of 7.3 (mg/kg/day)¹ results in an excess lifetime cancer risk of $1.1E-6$. This value does not exceed the EPA acceptable excess risk range of $1.0E-4$ - $1.0E-6$ for carcinogenic health effects.

Arsenic

Inorganic arsenic has been recognized as a human poison since ancient times, and large doses can produce death. Lower level exposure may produce injury in a number of different body tissues. The common effects from ingesting arsenic are stomach irritation, pain, nausea, vomiting and diarrhea. Prolonged exposure may cause decreased production of red and white blood cells, abnormal heart function, liver or kidney damage and impaired nerve function. The most characteristic effect of arsenic exposure is a pattern of skin abnormalities including the appearance of dark and light spots on the skin, and small corns on the palms, soles and trunk. Some of these abnormalities may lead to skin cancer. EPA has categorized

arsenic as a Group A, known human carcinogen.⁴³

Arsenic was detected in several soil samples at levels exceeding its EPA benchmark for exposure to industrial soil. Soil from the original Tyler landfill (S-2 & S-3), and from the shallow landfill on BFI properties (S-11) all exceeded the EPA benchmark. Given the highest concentration found on S-2 of 56.2 mg/kg and an oral slope factor of $1.75 \text{ (mg/kg/day)}^{-1}$, the excess lifetime cancer risk associated with exposure would be $3.8\text{E-}6$. This value does not exceed the EPA's acceptable excess risk for carcinogenic effects.

Dieldrin

This chlorinated hydrocarbon insecticide was used extensively on food and fiber crops to control termites until it was taken off the American market in 1987. Because dieldrin is highly persistent in the environment, residues remain detectable in soil and sediment for many years after it is applied. It is highly fat soluble and bioaccumulates in the food chain through plants growing in contaminated soil and animals that ingest these plants, soil nutrients, or underwater sediments.

Dieldrin can be absorbed by the human body through the skin, lungs and stomach. Most human exposure occurs through eating contaminated foods which are high in animal fat, such as meats, some types of fish, and non-skim milk dairy products. The central nervous system is a major target of dieldrin toxicity. Chronic exposure to moderate levels of the insecticide can cause headaches, dizziness, irritability, vomiting, and/or uncontrollable muscle twitching. A few cases of have been reported in which individuals chronically exposed to dieldrin developed rare disorders in which the body destroys its own blood cells.⁴⁴

Dieldrin was found in the soil sample taken from the shallow landfill surrounding the radio towers (S-15) at a level that exceeded the EPA benchmark. The concentration found here was 960 micrograms/kg. Based on this concentration and an oral slope factor of $1.6 \times 10^1 \text{ (mg/kg/day)}^{-1}$, the excess lifetime cancer risk associated with this exposure would be $1.0\text{E-}6$. This is the lower bound of the EPA's acceptable excess risk for carcinogenic health effects.

D. Ecological Risk

Chronic Ambient Water Quality Criteria (AWQC) values for the protection of aquatic life in freshwater were exceeded for cadmium, chromium, copper, cyanide, iron and lead in one or more surface water samples. Values for cadmium, chromium (assumed to be Cr VI), copper, iron and lead were all exceeded in sample SW-1 from an

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unnamed on-site stream. The value for iron (1000 ug/L) was also exceeded in four other surface water samples.

Substance	Highest Concentration in Surface Water (ug/L)	Chronic AWQC Value for Freshwater (ug/L)
Zinc	245	110
Chromium	38.6	11
Copper	59.5	12
Cyanide	45.2	5.2
Iron	12,600	1,000
Lead	157	3.2

The AWQC values for this metal is a function of water hardness. The value given is based on an assumed hardness level of 100 mg/L as CaCO₃.

E. Human Risk Summary

Noncancer Risk

None of the calculated hazard quotients exceed unity, and the hazard index is also less than one for the contaminants that exceed benchmark levels in the soils and sediments.

Noncancer Risk

SUBSTANCE	HAZARD QUOTIENT
Cadmium	0.16
Chromium	0.07
Copper	0.01
Manganese	0.33
Hazard Index	0.57

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Cancer Risk

Cancer risks for individual contaminants are within the range considered acceptable, as is the total cancer risk.

Cancer Risk Summary

Contaminant	Exposure Medium	Risk Estimate
Beryllium	sediment	1E-7
Beryllium	soil	1.1E-7
Benzo(a)pyrene	sediment	4.7E-8
PAHs	soil	1.1E-6
Dieldrin	soil	1E-6
Hazard Index		2.4E-6

7.0 Project Sampling

The first round of sampling for this PI-ESI was done on June 2nd and 3rd, 1993 by personnel from MDE's Site Assessment Division. GeoTrans, Inc., a consultant for the Estate of Robb Tyler, split some of the environmental samples with MDE.

Project Manager: Ginny Sells

Project Geologist: Robert Rothman

Safety Officer: Chris Pajak

CLP Coordinator: Michele Mosco

Sampling Personnel: Kim Lemaster
Chris Pajak
Mark Cox
Woody Featherstone
Patti Davis
Vasile Rusu
Ginny Sells

Community Relations Specialist: Ron Lamb

Site Assessment Division Chief: Alex M. Cox

EPA Region III MD Project Officer - Michael Taurino

Additional sampling of soils, and certain biological communities in Herring Run was conducted on June 7, 1994. The sample results will be reported in a separate volume when they are available.

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TABLE 1
INORGANIC SOIL DATA (9) (NO-174 PHASE I ESI)

	S-1	S-2	S-3	S-4	S-5 ^a	S-6 ^a	S-7	S-8	S-9	S-10	S-11	S-12	S-13 ^b	S-14	S-15	S-16
Al	119000 ^a	8260	14300	3610	6080	6470	9680	8520	nd	8400	14500	12400	118000 ^a	3670	5550	10500
Sb	15.3L ^a	nd	nd	nd	nd	nd	nd	nd	18.5L ^a	nd	18.0L ^a	nd	[11.8]L	nd	nd	nd
As	[4.8]L	56.2L ^a	34.7L ^a	[1.3]L	3.5L	3.9L	5.8L	6.5L	12.6L ^a	3.2J	33.8L ^a	9.2L	[4.3]L	6.4J	10.8L	[4.1]J
Ba	217	369	2250 ^a	[26.1]	62.1	74.1	249 ^a	269 ^a	73.2	[40.5]	585 ^a	189	202	113	708 ^a	148
Be	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.7 ^a	nd	nd	nd	nd
Cd	10.3 ^a	nd	101 ^a	nd	nd	nd	1.8K ^a	2.0K ^a	10.1 ^a	nd	6.3 ^a	3.2 ^a	9.6 ^a	[1.60]K ^a	10.8 ^a	[.95K ^a
Ca	11400	10900	49700 ^a	nd	7000	7320	8500	5990	2570	nd	9470	44700 ^a	11000	6610	3550	13100
Cr	366J ^a	161J ^a	138J ^a	36.4J	29.3J	22.5J	196 ^a	199 ^a	31.5	29.2	57.5	48.7	299J ^a	41.2	417 ^a	58.1
Co	16.3	13.9	35.7 ^a	[3.5]	[4.5]	[5.9]	[7.4]	[6.5]	[3.9]	[8.7]	13.6	[5.1]	18.0 ^a	[5.9]	[4.8]	[10.8]
Cu	3340 ^a	5270 ^a	1240 ^a	13.1	22.1	25.8	209 ^a	207 ^a	936 ^a	18.3	467 ^a	110	2150 ^a	50.7	798 ^a	86.5
Fe	36000	91800 ^a	46200 ^a	5950	13100	12600	20100	19900	8410	25800	73900 ^a	23800	43700 ^a	13000	21500	18300
Pb	558	491	2680 ^a	57.0	73.8	201J	109	107	2990 ^a	9.9	1530 ^a	204	552	151	723 ^a	236
Mg	4340	2370	6970 ^a	[781]	1870	2250	2130	nd	nd	2220	nd	13100 ^a	4060	2530	[915]	5220
Mn	928J ^a	1190 ^a	2060J ^a	56.7J	213J	240J	253	226	114	183	501	750 ^a	983J ^a	355	81.2	374
Hg	1.8 ^a	0.42	0.50	[0.05]	0.28	0.28	1.2 ^a	0.66	0.73	nd	0.85 ^a	0.23	2.5 ^a	nd	14.6 ^a	0.73 ^a
Ni	139 ^a	121 ^a	112 ^a	12.1	[5.5]	[6.1]	40.0 ^a	34.9 ^a	27.5 ^a	16.9	224 ^a	31.4 ^a	113 ^a	27.5 ^a	25.1 ^a	41.6 ^a
K	[744]	[507]	2200 ^a	[456]	[410]	[424]	[673]	[574]	[166]	[704]	[483]	[688]	[725]	[378]	3788	[1960 ^a
Se	nd	2.9L ^a	10.4L ^a	nd	nd	nd	2.3J ^a	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ag	4.3K ^a	6.1 ^a	12.6 ^a	nd	nd	nd	7.4 ^a	7.9 ^a	3.3 ^a	[1.1] ^a	17.5 ^a	[2.2] ^a	6.4K ^a	nd	47.3 ^a	[2.4] ^a
Na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Tl	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	[.34] ^a	nd	nd	nd	nd	nd
V	92.0	30.5	90.4	12.6	40.2	31.9	36.2	31.2	[10.3]	36.4	55.9	32.7	82.3	23.0	29.7	39.5
Zn	1340 ^a	466 ^a	4560 ^a	41.9	73.4	77.0	519 ^a	475 ^a	196	45.4	1520 ^a	364 ^a	1380 ^a	197	658 ^a	360 ^a
Cn	nd	nd	nd	nd	nd	nd	nd	2.0 ^a	nd	nd	0.75 ^a	nd	nd	nd	1.2 ^a	nd

^b = Duplicate of Soil 1

^a = Substance present at a level greater than or equal to 3X the background sample.

nd = Background sample

J = Analyte present. As values approach the JBL the quantitation may not be accurate.

nd = Not detected substantially above the level reported in field or laboratory blanks, or quantitation limit inaccurate, imprecise, or higher.

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value expected to be higher.

Cn = Cyanide

TABLE 2

INORGANIC SEDIMENT DATA (mg/kg) (NO-174 PHASE 1, 2, 3)

ANALYTE	SED-1	SED-2	SED-3	SED-4*	SED-5	SED-6	SED-7	SED-8*	SED-9	SED-10	SED-11*	SED-12 ^d	SED-13 ^c
Aluminum	9810	4600	2550	3180	17500	6990	3190	nd	3630	nd	nd	11100	9600
Antimony	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Arsenic	10.2L*	[2.5]J	[2.6]J	[2.1]J	9.2L*	3.3J	[2.2]J	[1.3]J	[1.7]J	[1.5]J	[0.99]J	[1.9]L	5.3L
Barium	355	77.9	[34.1]	[36.5]	138	73.9	[25.8]	[10.0]	[47.0]*	[17.5]	[15.5]	92.7	101
Beryllium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.9	nd
Cadmium	3.4K*	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	[0.41]K	[0.70]K
Calcium	18800	7230	7510	20800	4420	9910	6370	4010	6540	2670	2920	70600	9430*
Chromium	191*	54.8	13.5J	19.0J	63.4J	35.4J	15.8J	9.2	16.4J	7.0J	24.0J	37.4J	73.6J
Cobalt	[11.4]*	[6.5]	[6.1]	[4.6]	[17.7]	[11.1]	[7.7]	[4.3]	[4.4]	[1.8]	[2.4]	[7.0]	[13.7]
Copper	189*	42.7*	20.4	8.8	73.8*	42.2	15.8	6.7	15.5	8.1	9.3	22.5	65.4
Iron	27100*	11800	10800	11200	32200*	17100	10700	7390	9010	4290	4710	6520	20900*
Lead	591*	92.2	25.9	30.0	233*	121	37.1	43.4	55.0	13.6	30.1	55.2	179*
Magnesium	6720	3830	3200	8070	2420	5720	3350	1940	3890	[1030]	1340	22600	5070
Manganese	367	215	147J	290J	599J	331J	104J	114	126J	62.4J	140J	1450J	511J
Mercury	0.55*	0.21*	nd	nd	0.69*	0.28*	nd	nd	nd	nd	nd	[0.06]	0.46*
Nickel	107*	25.4*	[8.6]	[8.3]	52.4*	22.6	[8.0]	[5.7]	[9.6]	[1.8]	[5.0]	18.2	45.2
Potassium	[1610]	[1000]	[222]	[272]	[1140]	[1200]	[301]*	[74.7]	1310	[250]	[349]	[851]	[1380]
Selenium	nd	nd	nd	nd	[1.31]J	nd	nd	[0.93]J	nd	nd	nd	nd	nd
Silver	[3.2]	[1.2]	nd	nd	[1.5]K*	nd	nd	[1.4]	nd	nd	nd	nd	nd
Sodium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Thallium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vanadium	63.4*	23.3	17.5	15.8	57.7*	33.0	19.1	[10.4]	13.6	[4.5]	[5.9]	[9.7]	38.3*
Zinc	647*	188*	121	60.9	290	230	60.4	37.3	77.3	31.6	34.6	250	306
Cyanide	nd	nd	2.9*	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Legend * = Substance present at a level greater than or equal to 3x the background sample
 nd = Substance not detected significantly above field blank levels, or above method detection limit.
 D = Duplicate of SED-5

a = Background for SED-1,2,3,6; b = background for SED-1,2,7

c = Background for SED-5,6,9,10; d = background for SED-5,6,9,10

f) = Analyte present. As values approach the IRL the quantitation may not be accurate.

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value expected to be higher.

L = Analyte present. Reported value may be biased low. Actual value expected to be higher.

SED 5, 9, 11 NEERING RUN SED 7 (300 Run
 300 300 300 300 300 300 300 300 300 300 300 300 300 300

AR000050

TABLE 3. SURFACE WATER/GROUNDWATER DATA (ug/L) (ND-17) ASE I (ESI)

ANALYTE	SU-1	SU-2	SU-3	SU-4	SU-5	SU-6	SU-7	SU-8	SU-9	SU-10	SU-11	SU-12	SU-13	1
Aluminum	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Antimony	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Arsenic	[6.8]K	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Barium	499a	[49.3]	[48.3]	[46.8]	[48.3]	[57.1]	[35.1]	[48.9]	[39.5]	[170]	[96.6]	[43.9]	[52.7]	[49.6]
Beryllium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Cadmium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Calcium	71400	29100	32300	29100	26400	26300	26600	31000	26400	94600	45000	71900	28100	10000
Chromium	38.6a	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Cobalt	[4.3]a	nd	nd	nd	nd	[3.9]	nd	nd	nd	[5.8]	nd	[4.4]	nd	nd
Copper	59.5a	nd	[10.9]L	[4.3]L	nd	[4.3]L	nd	nd	nd	nd	nd	nd	nd	nd
Iron	12600J	nd	nd	1130	nd	1210	nd	1100J	nd	5370	4080	nd	nd	nd
Lead	157a	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Magnesium	16800	7610	6820	6630	7090	6470	6170	6950	7090	22400	9920	15300	7520	[2030]
Manganese	476	nd	nd	nd	nd	986	nd	nd	nd	3280	946	500	269	nd
Mercury	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Nickel	[19.2]L	nd	[15.8]	[7.2]	nd	nd	nd	nd	nd	[11.8]	nd	[7.2]	nd	nd
Potassium	11200	[4170]	[4070]	[3570]	[3970]	[3960]	[3070]	[3390]	[4000]	8720	[4750]	6770	[4150]	[2910]
Selenium	nd	nd	[3.9]L	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Silver	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Sodium	65900	24800	20500	23900	22200	21100	22300	25800	22500	20900	22600	53200	23600	118000
Thallium	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Vanadium	[16.4]a	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Zinc	245	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	86.2	nd	nd
Cyanide	nd	45.2L	nd	nd	nd	nd	nd	nd	35.8L	nd	nd	nd	nd	nd

a = background for SU-1,2,3,6; b = background for SU-1,2,7
c = background for SU-5,6,9,10; d = background for SU-5,6,9,10
e = Substance present at a level greater than or equal to 3X the background sample
nd = Substance not detected significantly above field blank levels, or above method detection limit
B = Duplicate of SU-5
x = levels exceed AOCs for acute and/or chronic toxic effects to aquatic life²³
[] = Analyte present. As values approach the IRL the quantitation may not be accurate.
j = Analyte present. Reported value may not be accurate or precise.
K = Analyte present. Reported value may be biased high. Actual value expected to be lower.
L = Analyte present. Reported value may be biased low. Actual value expected to be higher.

TABLE 4

ORGANIC SOIL DATA (ug/kg) (MD-174 PHASE 1 ES)

COMPOUND	S-1	S-130U	S-2	S-3	S-4	S-5**	S-6**	S-7	S-8	S-9	S-10	S-11	S-12	S-14	S-15	S-16
Acetone																
Anthracene			190J*									4000*				
Arochlor-1260	a	23J*		63J*					73J*	38J*		750J*				
Benzene												6J*				
Benzo(a) Anthracene	250J*	170J*	910*					150J*	130J*			11000J*	1300J*	310J*		720J*
Benzo(a) Pyrene	a	170J*	200J*									8800J*		350J*		930*
Benzo(b) Fluoranthene	630*	520J*	1900*	220J			170J	460J	370J	290J		200000*	3000J*	760*	2000J*	2300*
Benzo(g,h,i) Perylene	a	230J*										3800J*		410J*		920*
Butylbenzyl-phthalate								180J*	170J*							
Carbazole			140J*									2600*				
Carbon Disulfide								18*								
Chlordane (alpha)	39 ^a *	2.8L*	19J*	7.3J*	4.2*				11*	57J*		58J*	93J*			
Chlordane (gamma)	24 ^b *	1.5J*	18J*	8.7*	4.3*				5.8J*	55L*		21J*	100J*			
Chloro-benzene								11J*								
Chrysene	200J*	140J*	760*					160J*				8500*		290J*		800J*
Dibenz(a,h) Anthracene	a	120J*										1500J*				
Dibenzofuran												1200J*				
Dieldrin				32*					53J*						960*	
Ethylbenzene									6J*							
Fluorene			110J*									1900J*				
Fluoranthene	350J*	270J*	2000*	130J*				570*	410J*	120J*		200000*	3400J*	830*		1600*
Indeno(1,2,3-cd)Pyrene	a	170J*	140J*									4200J*		260J*		740J*
Methoxychlor																
Methylene Chloride								180*	180*	54*		240J*				

ORIGINAL
(Red)

AR000052

CC-FOUND	S-1	S-130U	S-2	S-3	S-4	S-5 ^{as}	S-6 ^{as}	S-7	S-8	S-9	S-10	S-11	S-12	S-14	S-15
Naphthalene												1200J ^a			
Phenanthrene	150J ^a		1200 ^a					640 ^a	160J ^a			140000 ^a	1600J ^a	340J ^a	710J ^a
Pyrene	170J ^a	160J ^a	740 ^a					450 ^a	350J ^a			13000J ^a	2000J ^a	490J ^a	1100 ^a
Tetrachloro-ethene				3J ^a								6J ^a			
Trichloro-ethene												11J ^a			
Toluene								37 ^a				5J ^a			8J ^a
Xylenes(total)								32 ^a							
bis(2-ethylhex-yl)phthalate	310J	340J	110J		120J	140J		1800 ^a	1600 ^a	1900 ^a	150J	72000 ^a		250J	1800 ^a
2-Butanone															
2-Methyl naphthalene												710J ^a			
4,4' - DDO								5.7J ^a							
4,4' - DDE				32 ^a				16J ^a	9.8J ^a						
4,4' - DDT				13J ^a						15J ^a					
4-Methylphenol															

LEGEND

DUPLICATE of Soil 1

DUPLICATE of Soil 1

DUPLICATE of Soil 1

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DUPLICATE of Soil 1

DUPLICATE of Soil 1

TABLE 2

TABLE 2: SEDIMENT DATA (mg/kg) NEW 11-10-1984

COMPOUND	SED-1	SED-2	SED-3	SED-4*	SED-5	SED-13DU	SED-6	SED-7	SED-8*	SED-9	SED-10	SED-11*	SED-12*
Benzo(a) Anthracene	590*	580J*	210J*		340J*	330J*	460J*	260J*		310J*			
Benzo(a) Pyrene	610*	700*		150J	410J*		190J*						
Benzo(b) Fluoranthene	1400*	1700*	580J	400J	1000J*	770*	1100	740	230J	600*	170J*		
Benzo(g,h,i) Perylene	610*	600J*		140J	420J								
Butylbenzyl-phthalate		390J*											
Carbon Disulfide		4J*											
Chlordane (alpha)			15	6.6	11		48*	12*		10		2.9	
Chlordane (gamma)			14	7.2	9.3		50*	13*		10		3.2J	
Chloro-benzene	3J*												
Chrysene	670*	760*	250J*	160J	390J*	360J*	510J*	300J*		320J*			
Dieldrin			5.7*										
Fluoranthene	1400*	1500*	700J	410J	900J*	720*	1400*	750*	200J	880	180J*		
Indeno(1,2,3-cd)Pyrene	460J*	510J*			320J								
Methoxychlor								56*					
Methylene Chloride											67		
Phenanthrene	650*	670*	300J*	180J*	280J*	240J*	570J*	310J*	130J	500*			
Pyrene	1000*	1100*	270J*	220J*	640J	300J*	620	310J*	170J	340J*			
Toluene	7J*	5J*			7J*	10J*				71*	1J*		
bis(2Ethylhex-yl)phthalate	880*	2300*	370J	240J		220J*	1800*	660J	41000	690*	140J*	230J	140J
4-Methylphenol		250J*			280J*	710				310J	230J*		

LEGEND

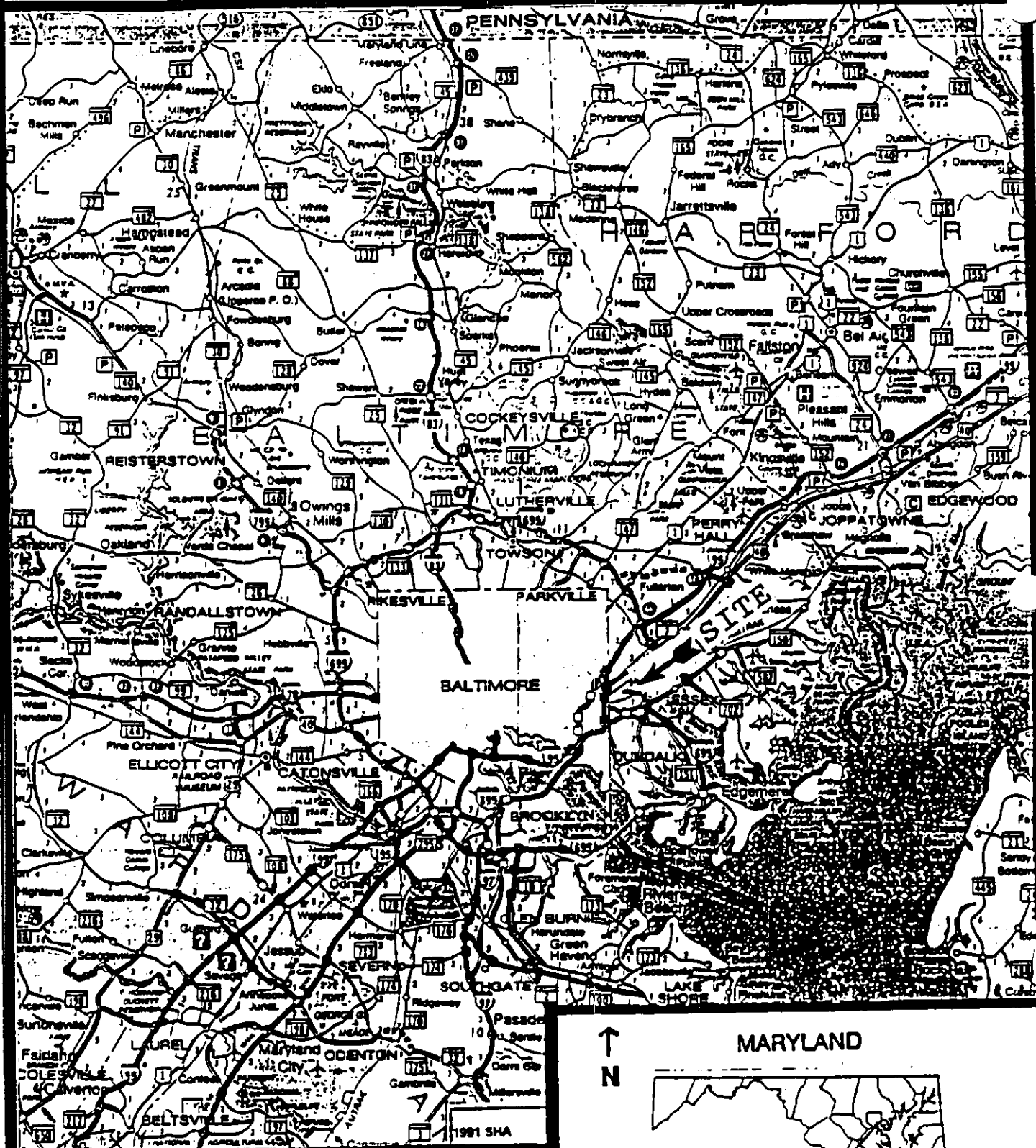
a = background for SED-1,2,3,6; b = background for SED-1,2,7; c = background for SED-5,6,9,10
d = background for SED -5,6,9,10; DU = duplicate of SED-5
* = compound detected below the contract required detection limit for the background sample.
+ = compound present at a level greater than or equal to 3X the background sample(s).
J = analyte present. reported value may not be accurate or precise.
blank space= substance not detected significantly above field blank levels, or above method detection limit.
D = dilution factor of 1.0/2.0

AR000054

9.0 FIGURES

REGIONAL HIGHWAY MAP

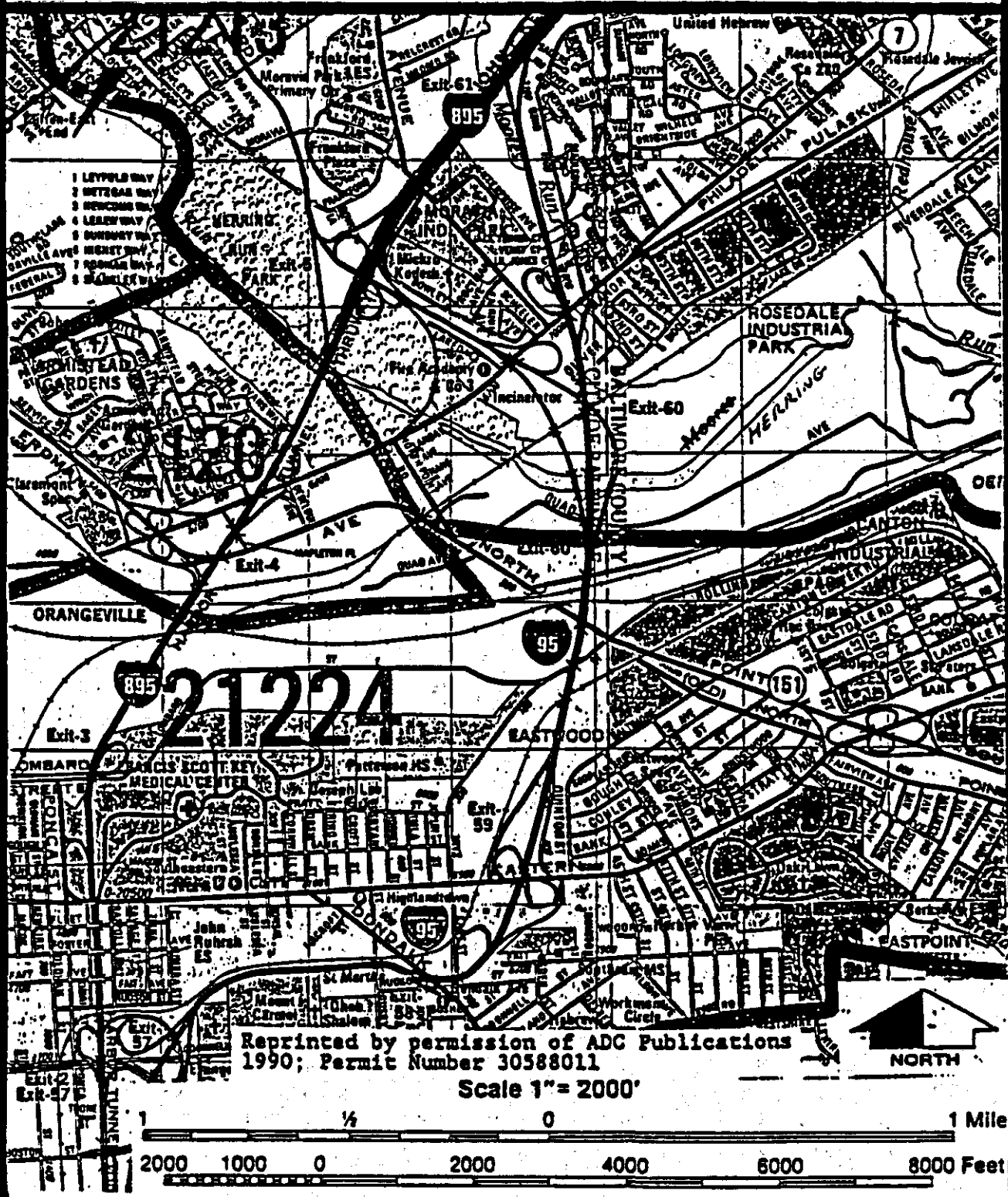
FIGURE 1 (en)



ORIGINAL
(Red)

LOCAL STREET MAP

FIGURE 2



**68th Street Dump Site
(MD-174)**

Michieo Kadisen
Cemetery

Substation:

Substa

FIGURE 3

SAMPLING LOCATIONS

INTERCHANGE!

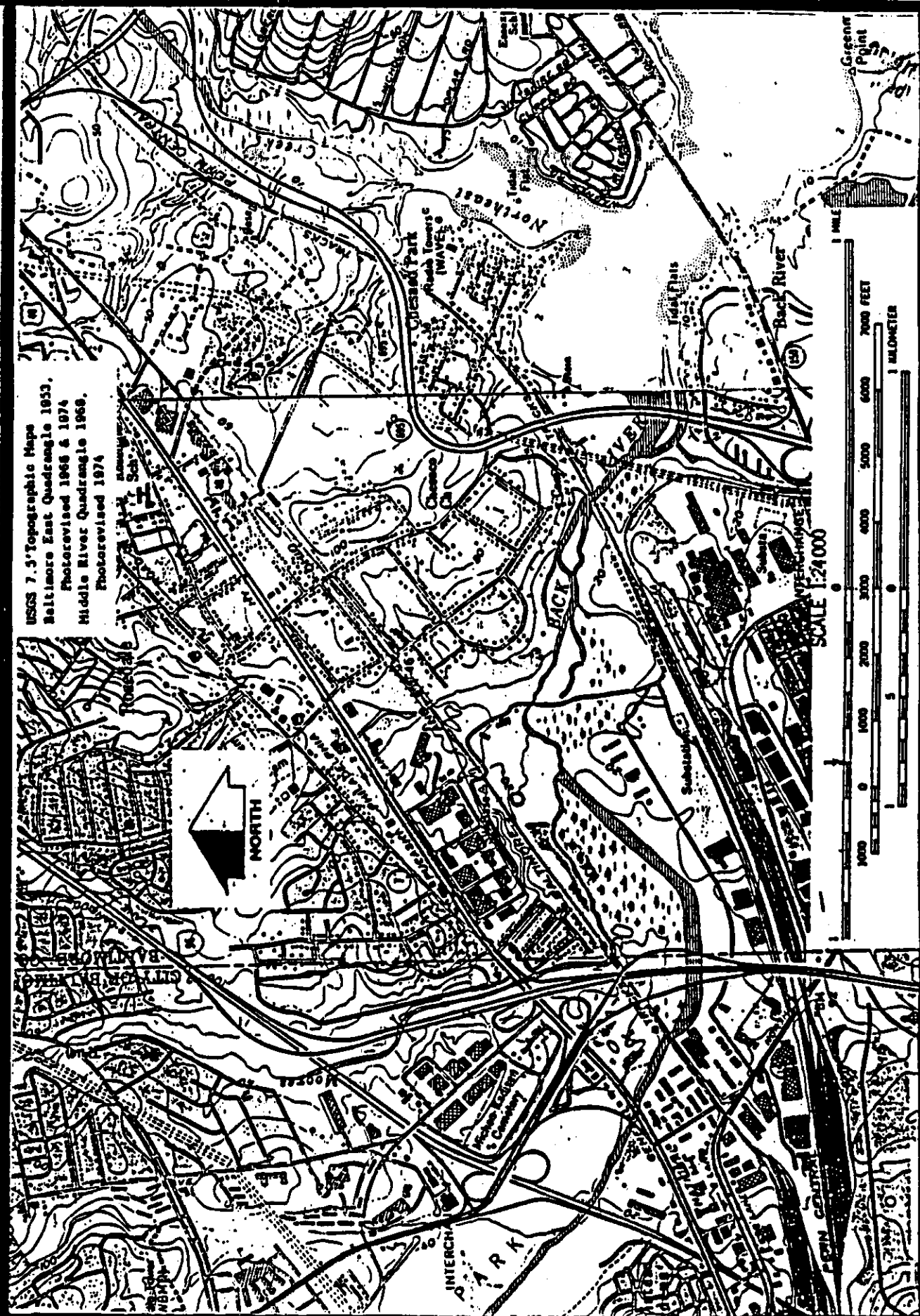
NORTH

İşitir

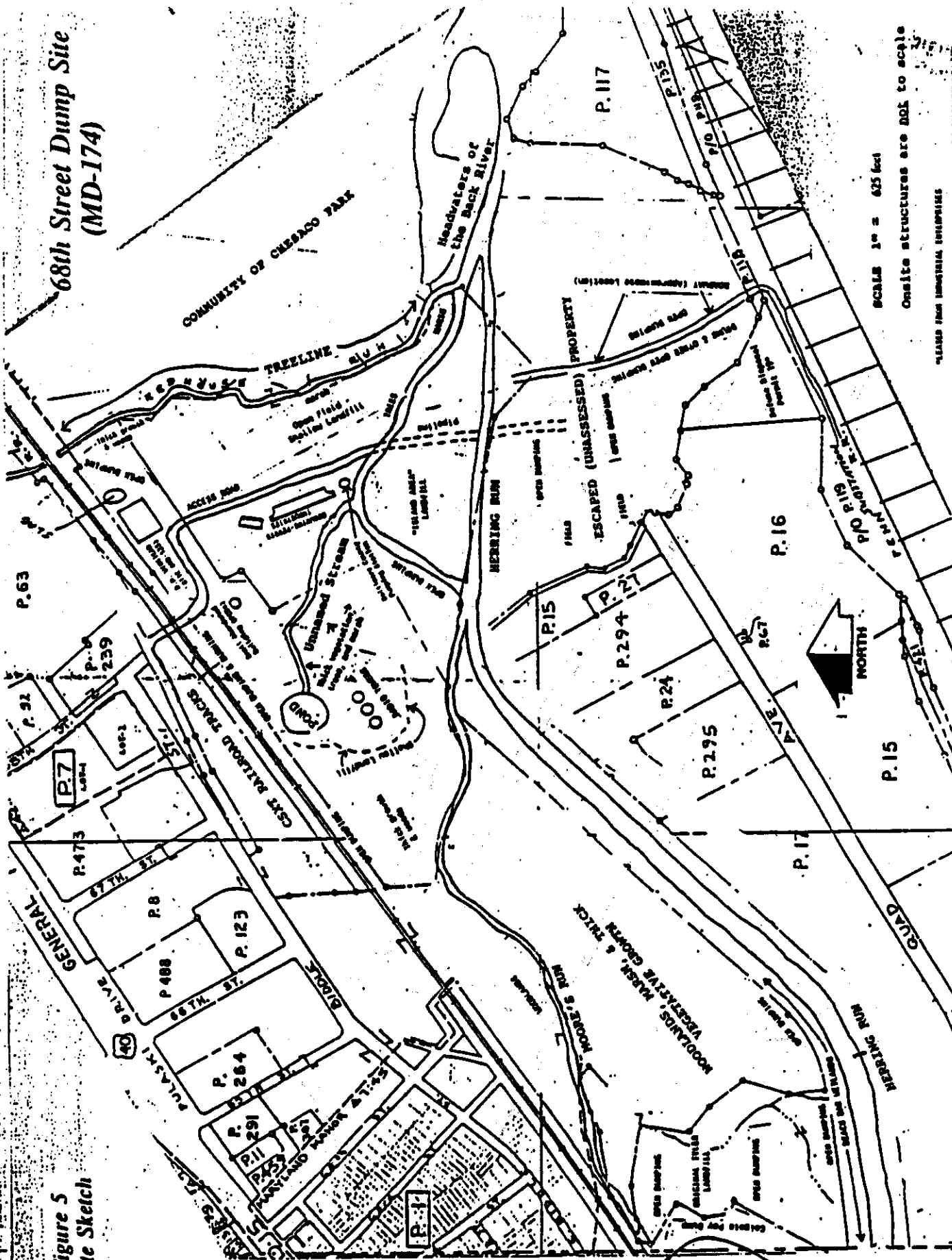
Year	Population (in thousands)
1980	1000
1985	1500
1990	2000
1995	2500
2000	3000

AR000058-

FIGURE 4



68th Street Dump Site (MD-174)



SCALE 1" = 625 feet

Onsite structures are NOT to scale

*BASED FROM AERIAL PHOTOGRAPHS

Figure 5
Site Sketch

INTERSTATE - 95

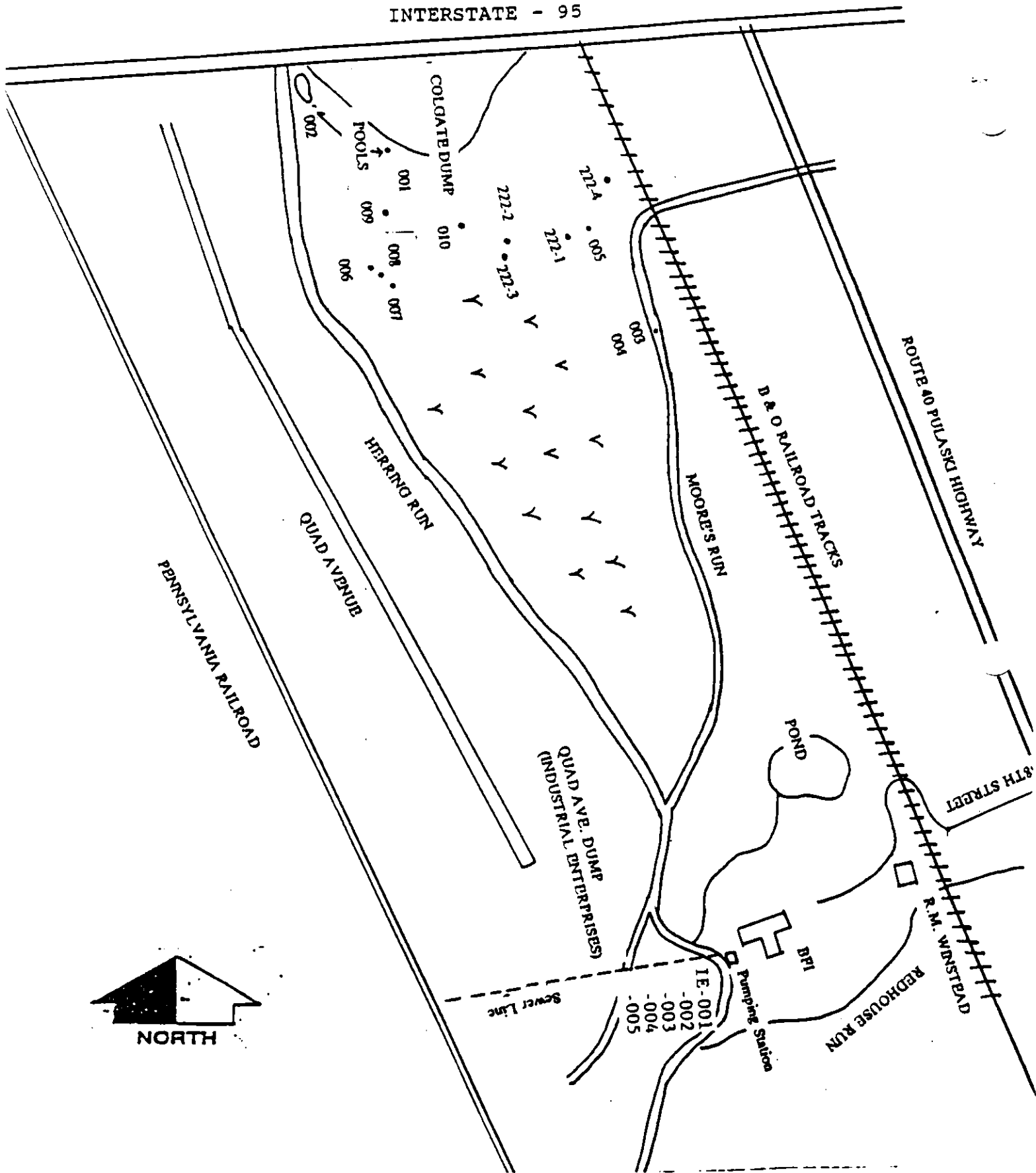
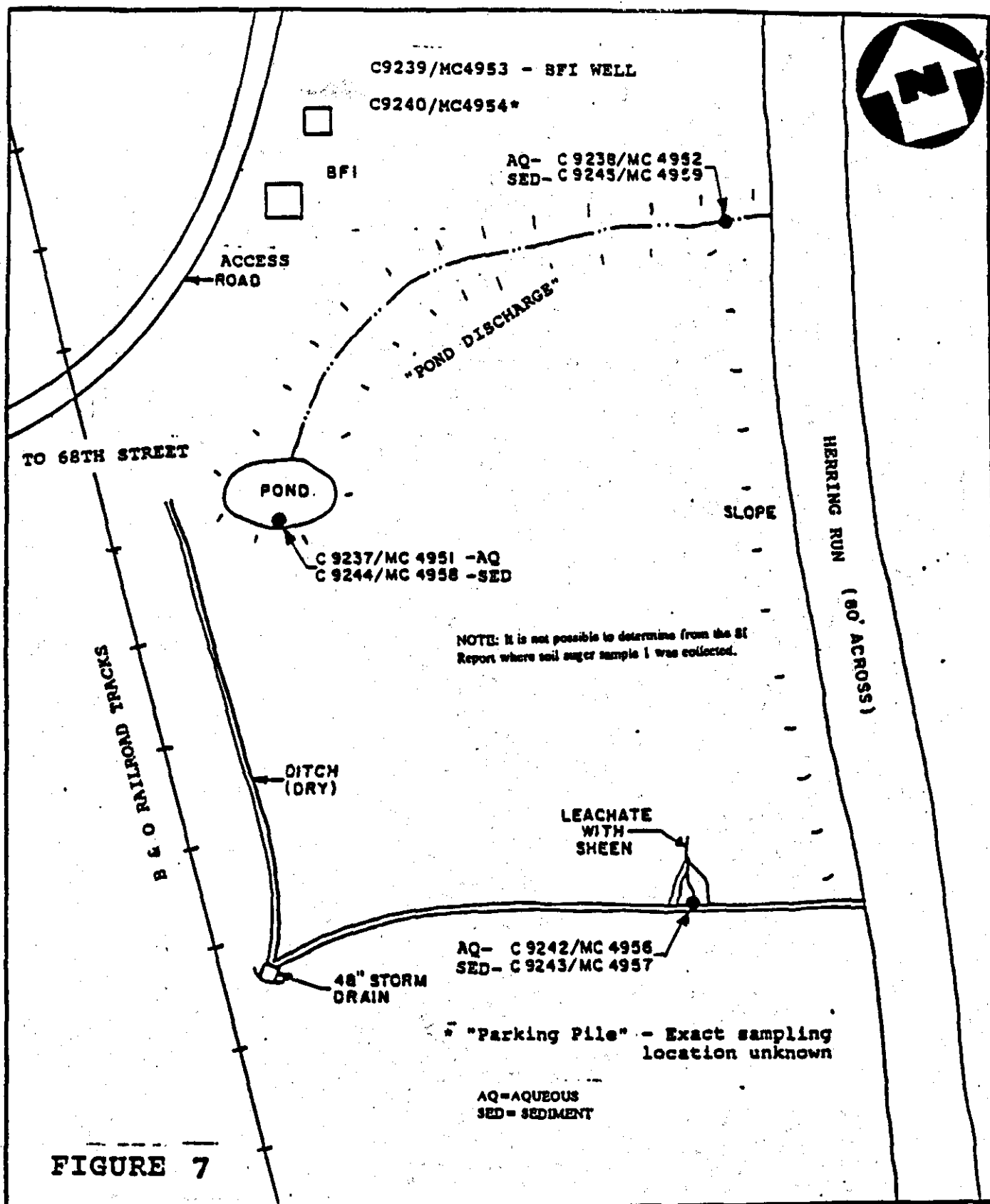


FIGURE 6

68th Street (Robb Tyler) Dump (MD-174)
Preliminary Assessment Sampling Locations



**SITE INSPECTION
SAMPLE LOCATION MAP
68th STREET DUMP, BALTIMORE, MD.
(NO SCALE)**

(Revised 1/93)

SI

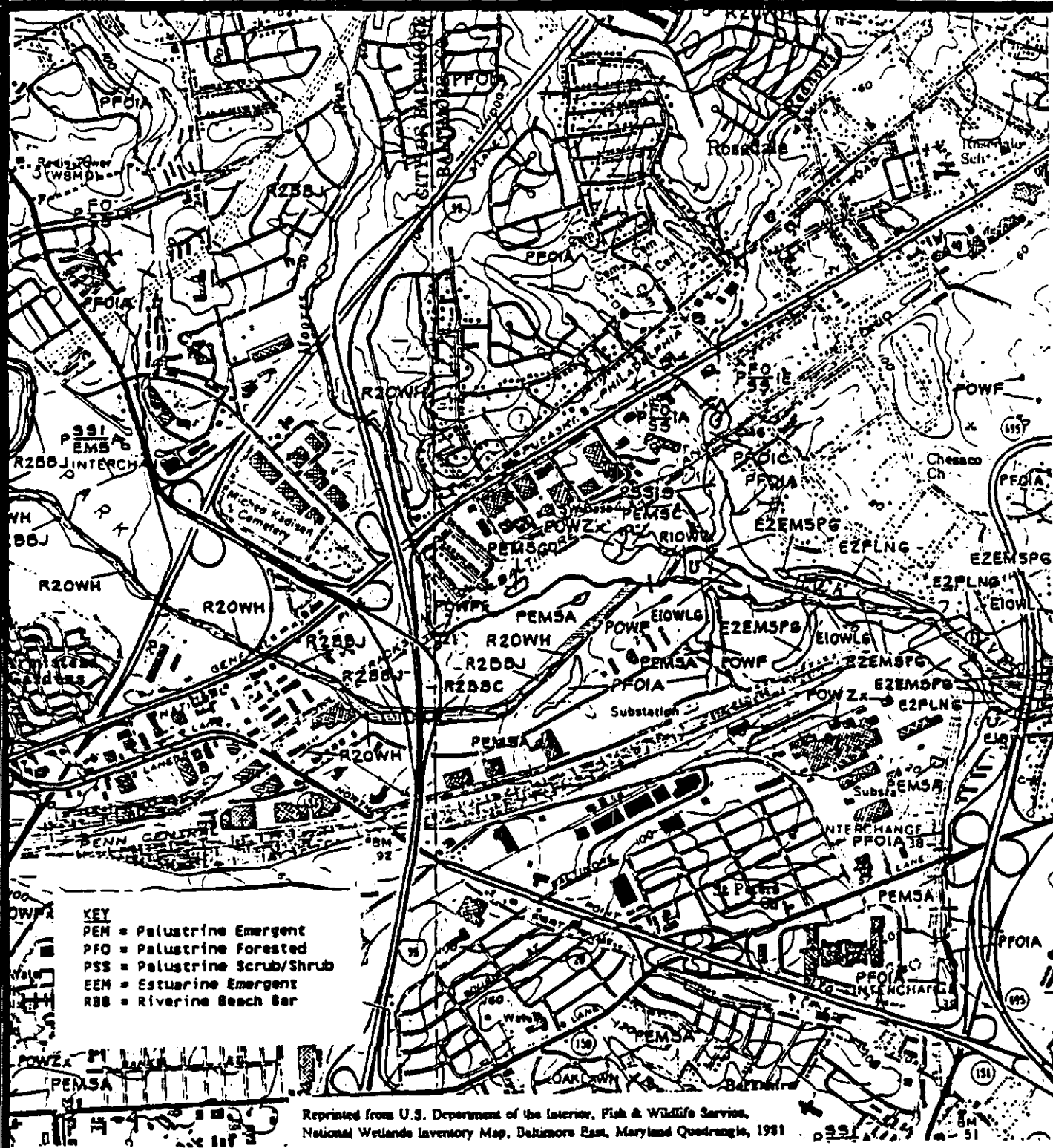
NUS
CORPORATION

A Halliburton Company

AR000062

WETLANDS MAP

FIGURE 8



SCALE 1:24,000

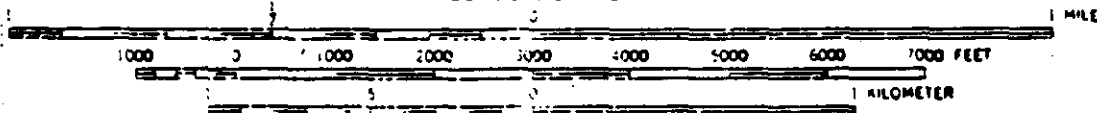
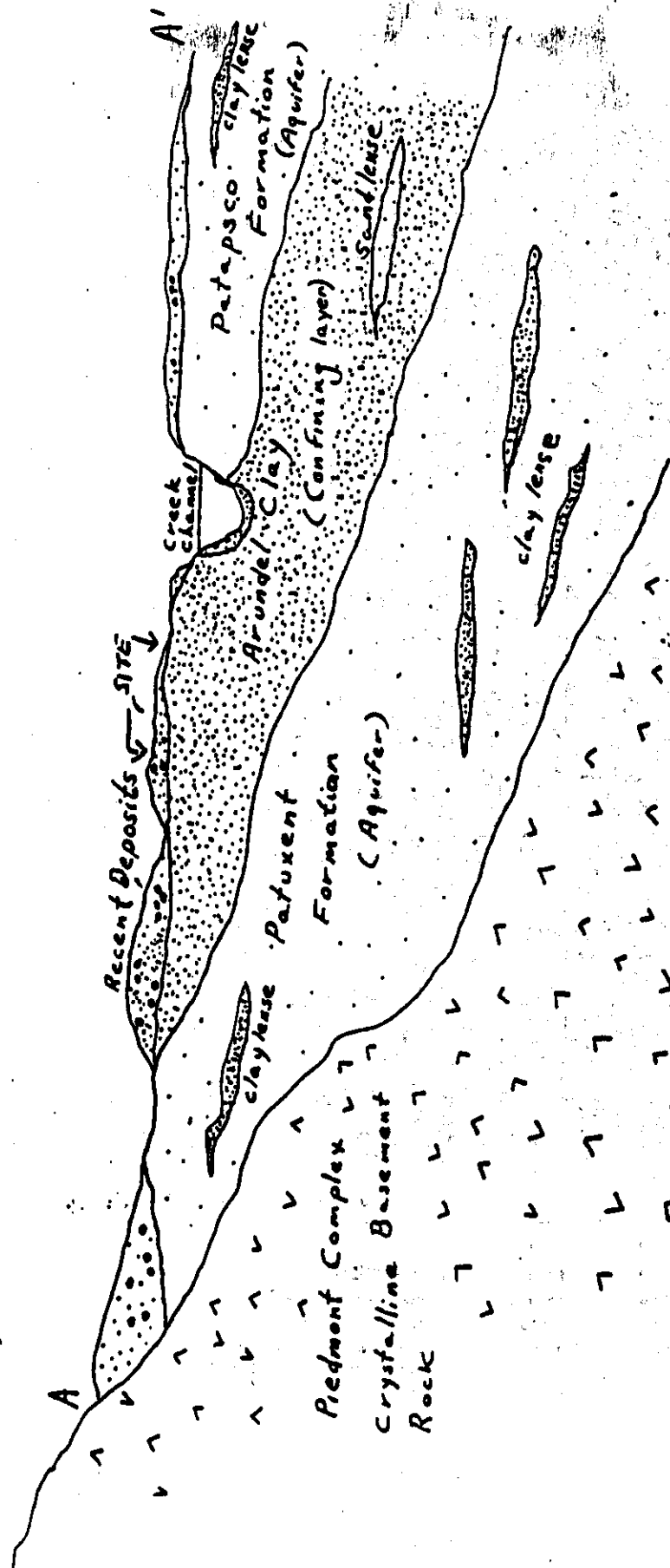


FIGURE 9

Southwest
towards the
Back River

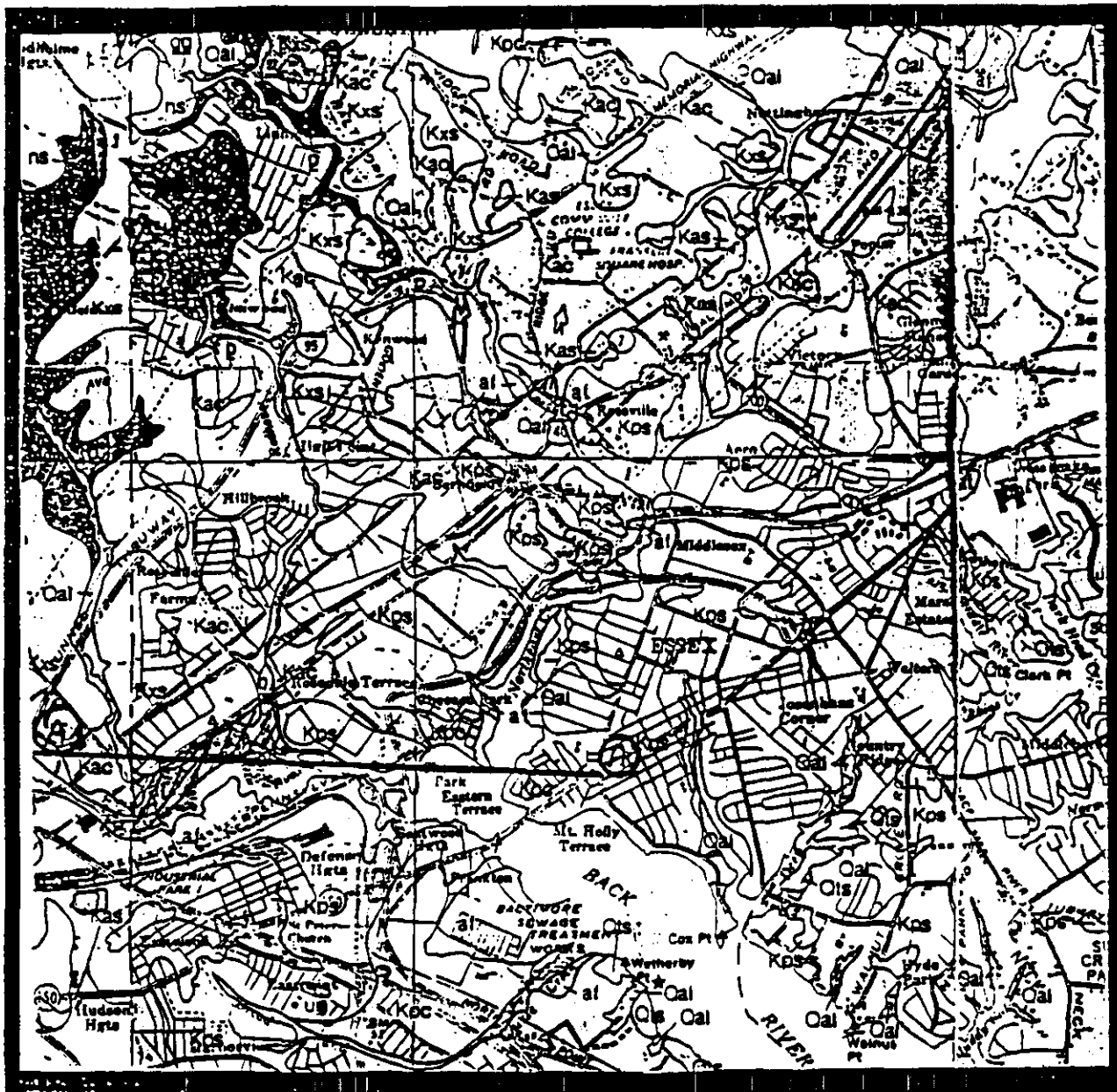
Northwest
towards
Baltimore City



CROSS SECTION OF THE 68th ST. DUMP AREA

SCALE:	APPROVED BY:	DRAWN BY:
NO SCALE		R.M. KATAMAN
DATE:		REVISED
12 MARCH, 1973		
<p>Note: This is a conceptual model of the geologic formations found at the 68th St. Dump area.</p>		
<p>SOURCES: VARIOUS GEOLOGIC MAPS AND LITERATURE CONSULTATION OF MARYLAND, GEORGETOWN AND THE DISTRICT OF COLUMBIA USGS 1969-70, 1971</p>		<p>DRAWING NUMBER</p>

Figure 10
Geologic Map



scale 1:62,500

Oal Alluvium
Qrs Talbot formation-sand facies
Kps Patapsco formation-sand facies
Kxs Patuxent formation-sand facies
Kxc Patuxent formation-clay facies
Kas Arundel formation-sand facies
Kac Arundel formation-clay facies
ug upland gravel
af artificial fill

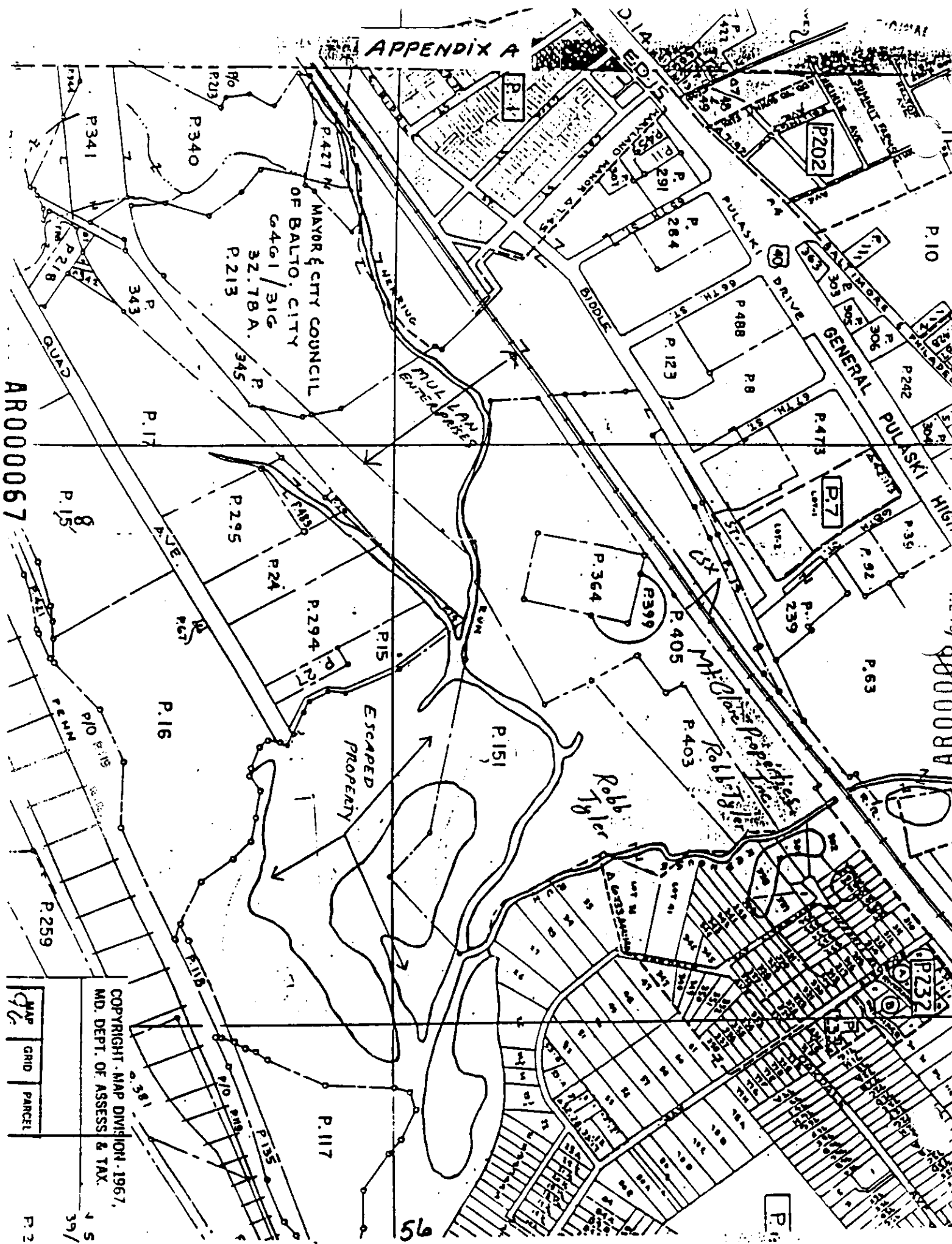
p Perry Hall Gneiss
r Raspeburg Amphibolite

↑ north

source: Crowley, Reinhardt,
and Cleaves, Geologic Map of
Baltimore County and City,
Maryland Geological Survey,
1976

APPENDICES

APPENDIX A



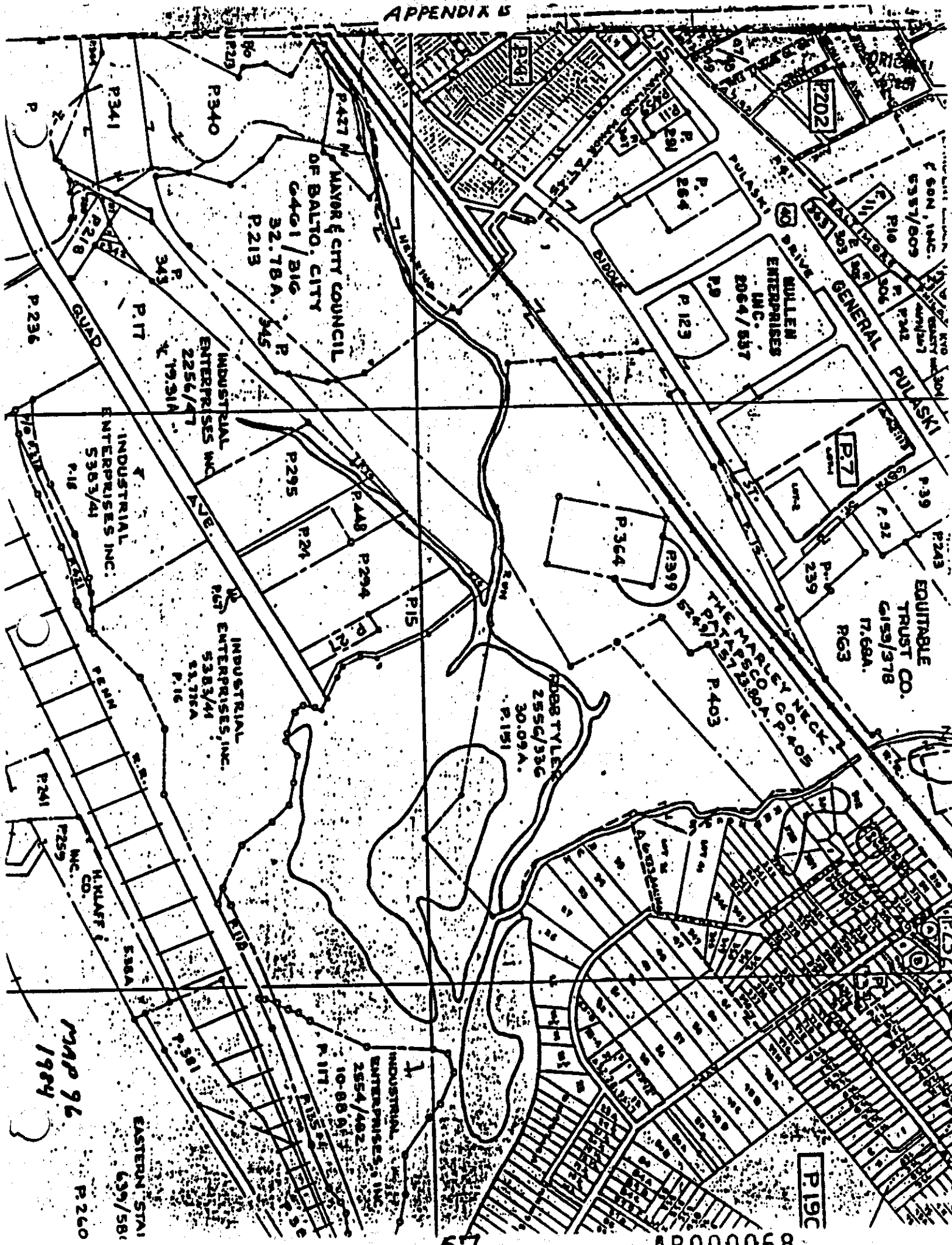
AR000067

AR000067

COPYRIGHT - MAP DIVISION - 1967,
MD. DEPT. OF ASSESS. & TAX.

MAP GRID PARCEL
P. 2

APPENDIX U



AR000068

1047-1048

1047-1048

1047-1048

1047-1048

1047-1048

1047-1048

1047-1048

1047-1048

1047-1048

APPENDIX D

59

Baltimore County SCS Photo
Herring Run/Back River Channel
June 18, 1964
A-0-100-189

AR000070



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
(717) 657-4588
June 14, 1985

RECEIVED

JUN 20 1985

ENVIRONMENTAL DIVISION

Mr. John Koontz
Maryland Waste Management Administration
201 West Preston Street
Baltimore, MD 21201

Re: Robb Tyler Facility
Potential Superfund Site
Maryland

Dear Mr. Koontz:

As we have discussed, attached is information indicating that plating sludges from R & R Metal Finishing, currently Heritage Metal Finishing, Inc., may have been disposed of at a facility in Maryland. Both a waste inventory form completed in 1980 and a letter from the generator in 1978 document the use of Tyler or Taylor site. I have also included some waste stream analyses and general information concerning the waste streams and industrial processes at the generator's facility.

I hope this information will be of value to you in investigating this site and identifying potential responsibility parties. Please apprise me of the results of your investigation.

Sincerely,

Gregory L. Harder
Solid Waste Specialist
Harrisburg Regional Office

GLH:jsm

Attachments

R. & R. METAL FINISHING CO. INC.
800 SOUTH MARKET STREET • ELIZABETHTOWN, PA. 17022
AREA (717) PHONE 367-1561

February 1, 1978

Dept. of Environmental Resources
1002 Health & Welfare Building
Harrisburg, Penna. 17120

Attn: Francis Fair

Re: Disposal of Waste Sludges

Dear Mr. Fair:

In reply to your letter of January 18, 1978, concerning the disposal of waste sludges.

Semi solid sludges containing 15% to 20% solids are collected in 55 gallon drums. This sludge is hauled from our facilities in lots of 85 drums by Zeiglers Liquid Waste Management, Inc., P.O. Box 2007, York, Pa., and disposed of at Jonas Waste, Banridge Road, Swell, New Jersey.

Liquid sludge containing 1% to 2% solids are collected in a tank truck and hauled from our facilities in lots of 3500 gallons by our truck to a disposal cite at Robb Tyler, P.O. Box 15580 Baltimore, Maryland.

Very Truly Yours,


Charles E. Roland

President

CER/ym

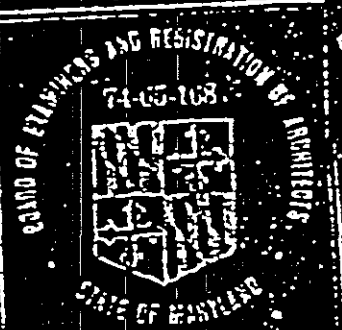
APPENDIX F

LOCATION PLAN

SCALE: 1" = 200'

GARAGE BUILDING
FOR
MR. ROBB TYLER
BALTIMORE COUNTY, MD.

TYLER, KETCHAM & MYERS
ARCHITECTS
513 PARK AVENUE, BALTIMORE 1 MD.



COMM. NO.

SHEET NO.

5603



DATE
6-1-56

EXISTING MASONRY
& METAL WORK BUILD

N

EXIST

TEST

100

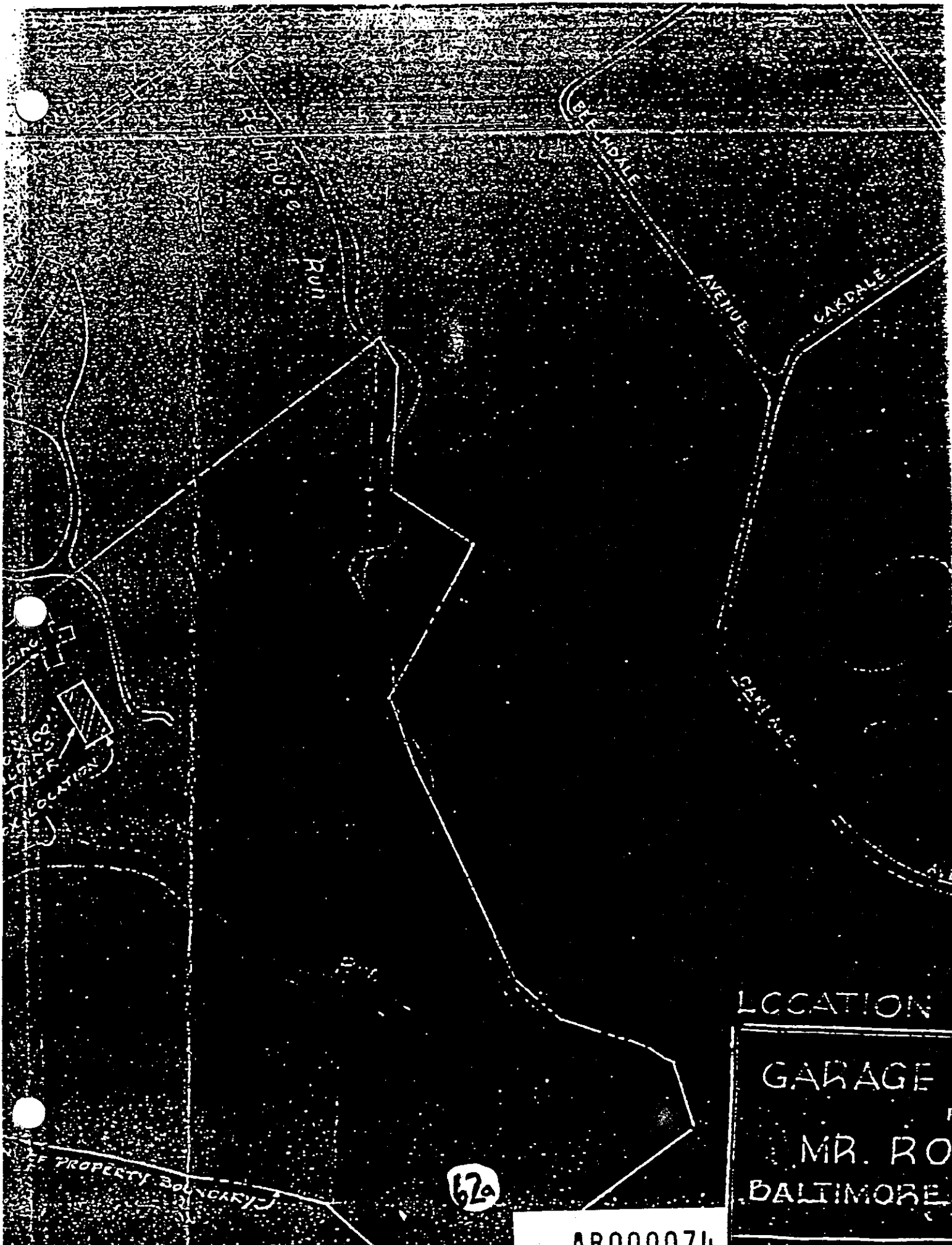
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100

100

62

AR000073



LOCATION

GARAGE

MR. RO.
BALTIMORE

620

AR000074

APPENDIX G

215-030-01

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT ADDENDUM
WEBB DAY AND NIGHT TRANSMITTER SITES
BALTIMORE, MARYLAND

Prepared for:

Allied Media Inc.
65 Central Street
Woodstock, Vermont 05091

Prepared by:

Radian Corporation
2455 Horsepen Road
Suite 250
Herndon, Virginia 22071

August 22, 1991

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TABLE OF CONTENTS

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1.0	BACKGROUND	1-1
2.0	SITE VISIT	2-1
3.0	ADDITIONAL REGULATORY AGENCY CONTACTS	3-1
4.0	SUMMARY AND CONCLUSIONS	4-1

1.0 BACKGROUND

In response to a request from Mr. Jon McCabe of Allied Media, Radian Corporation has performed additional site assessment activities at the WEBB Radio Transmitter sites in Baltimore, Maryland. This report is submitted as an addendum to the July 22, 1991 Phase 1 Environmental Site Assessment Report prepared by Radian Corporation for the same site. The information presented in this report addendum was obtained during a tour of the transmitter sites on August 20, 1991, and contacts with state regulatory agencies.

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4-17

2.0 SITE VISIT

On August 20, 1991, Radian visited the WEBB Day and Night Transmitter sites and met with facility engineering, Roger Default. Radian inspected the interior of the six transmitter towers at each of the sites which were not accessible during the initial visit. Inspection of each of the enclosures revealed no evidence of previous spills or leaks of PCB-containing fluids such as staining or standing oil. No evidence of leaks or other releases were found in or around any of the transmitter enclosures.

3.0 ADDITIONAL REGULATORY AGENCY CONTACTS

Radian also requested additional information regarding environmental records in the State files for facilities near the two transmitter sites. This information is only available upon written request and generally requires 30 to 60 days to obtain. Radian has submitted a Freedom of Information Act request to the Hazardous and Solid Waste Management Administration. A copy of this request is included for reference as Attachment A. We will forward any information received from this request to Allied Media.

4.0

SUMMARY AND CONCLUSIONS

Based on the additional site visit described in this addendum and Radian's previous assessment as described in the July 22, 1991 report, hazardous materials or hazardous waste constituents were not observed at the land surface, nor was there evidence of past hazardous materials contamination of the land surface at the WEBB day and night transmitter sites. The primary issue of concern noted was the PCB-containing materials used and handled on site. No evidence of mishandling, spills, or releases of these materials was found in the accessible portions of the sites. However, environmental samples were not collected and analyzed at this time to confirm visual observations made at the site.

It should be noted that this environmental assessment of the WEBB transmitter sites is limited to the extent of the activities and investigation described in this report. Radian's evaluation of the conditions that currently exist at the two sites is based on visual evidence collected from accessible portions of each site during the site tour. No other warranties are implied or expressed as to the environmental status of the site, including inaccessible areas, subsurface conditions, or other conditions not visibly discernable.

ATTACHMENT A

Freedom of Information Act Request Letter

RADIAN
CORPORATION2435 Horsepen Road, Suite 250
Herndon, VA 22071
(703)834-1500215-030-01-10
20 August 1991Ms. Jeanette Owens
Hazardous and Solid Waste Management Administration
2500 Broening Highway
1st Floor, Building 30-A
Baltimore, Maryland 21224

Dear Ms. Owens:

Under the Freedom of Information Act, Radian Corporation is requesting any environmental records available on two properties in the Baltimore area. Of specific interest to Radian are inspection records, reported spills, or environmental complaints at the properties or in the immediate vicinity of them. The properties of interest are:

Site #1: 3400 Carling Park Drive, Baltimore, Maryland 21215; and

Site #2: 1050 66th Street, Rosedale, Maryland 21237.

Both sites are owned by Allied Media. Please route this request through all departments within your group that may retain records for the sites. You may call Nancy Drehwing or Jim Zimmerman at (703) 713-1500 should you have any questions regarding this request, or if the volume of material to be copied exceeds the threshold that is free of cost. Thank you for your prompt attention to this matter.

Sincerely,


Nancy Drehwing
Engineer

ND:bjg

cc: Jim Zimmerman

JUG-016
0920-01.btg

APPENDIX H

Ownership History - 68th Street Dump Site (MD-174)

The site property is located on State Taxation And Assessment Map 96, blocks 3,4,9 and 10. This ownership history is based on information at the Baltimore County Courthouse that was readily available.

Parcel 405

October 30, 1972 (Liber 5328 Folio 190)

Grantor: The Marley Neck Patapsco Company, and Robb and Elizabeth Worthington Tyler

Grantee: Maryland State Highway Administration

February 4, 1972 (Liber 5249 Folio 957)

Grantor: Chesaco Park Holding Company, Inc.

Grantee: The Marley Neck Patapsco Company (c/o CSXT)

Being portions of the premises acquired from Maryland Brass and Metal Works of Baltimore City.

This Parcel is currently owned by Mt. Clare Properties, Inc., a subsidiary of CSX Realty previously known as the Marley Neck Patapsco Company.

Parcel 403

February 4, 1972 (Liber 5249 Folio 949)

Grantor: Chesaco Park Holding Company, Inc.

Grantee: Robb and Elizabeth Worthington Tyler

April 12, 1968 (Liber OTG 4866 Folio 669)¹

Grantor: Ruth Muir, W.A. Cerisriel, and Stanley B. Cerisriel (surviving Directors and Trustees of the assets of Maryland Brass & Metal Works)

Grantee: Chesaco Park Holding Company, Inc.

August 13, 1957 (Liber GLB 3273 Folio 522)¹

Grantor: Maryland Brass and Metal Works

Grantee: Chesaco Park Holding Company

Parcel 151

September 16, 1954 (Liber 2556 Folio 336)

Grantor: Marie B. Kavanaugh

Grantee: Robb and Elizabeth W. Tyler

APPENDIX H - page 2

July 2, 1941 (Liber CWB Jr. 1167 Folio 574)

Grantor: Maryland Brass and Metal Works
Grantee: Benjamin J. and Marie B. Kavanaugh

May 16, 1930 (Liber L.McL.M 853 Folio 243)*

Grantor: Ludwig Madl, Jr.
Grantee: Maryland Brass and Metal Works, a Corporation of the State
of Maryland

* The property was parceled out as follows:

December 28, 1937 (Liber CWB Jr. 1020 Folio 356)
To the Commissioners of Baltimore County

July 2, 1941 (Liber CWB Jr. 1167 Folio 574)
To Benjamin J. Kavanaugh and wife

November 29, 1954 (Liber GLB 2611 Folio 61)¹
Leased to 1360 Broadcasting

December 18, 1956 (Liber GLB 3084 Folio 399)¹
Leased to 1360 Broadcasting

¹ This property was previously owned by the Baltimore and Ohio Railroad, (September 19, 1883 Liber WM1 136 Folio 151)

Grantor: Francis White
Grantee: B & O Railroad, and;

September 16, 1851 (Liber AWB 466 Folio 357)

Grantor: George Hammersby
Grantee: Miles White

All of these property transfers are linked to Liber L.McL.M 853 Folio 243 (Grantor: Maryland Brass and Metal Works; Grantee: Ludwig Madl, Jr.

Parcel 340

July 20, 1982 (Liber 6461 Folio 310)

Grantor: Maryland State Highway Administration
Grantee: Mayor and City Council of Baltimore

APPENDIX H - page 3

February 19, 1969 (Liber 4973 Folio 525)

Grantor: Robb Tyler

Grantee: Baltimore County (Parcel 341)

October 18, 1951 (Liber 2029 Folio 258)

Grantor: Church Home Hospital

Grantee: Robb Tyler

NOTE: All or a portion of this parcel was previously used by Robb Tyler to operate a sanitary landfill from 1953-1956 under State Health Department Refuse Disposal Permit 11.

Parcel 213

July 20, 1982 (Liber 6461 Folio 316)

Grantor: Maryland State Highway Administration

Grantee: Mayor and City Council of Baltimore

NOTE: No additional information on the ownership of this parcel was readily available during the deed search. The historical use of this property is unknown at present.

Parcel 364

1360 Broadcasting Company c/o CSXT Realty

Parcel 341

February 19, 1969 (Liber 4973 Folio 525)

Grantor: Robb Tyler

Grantee: Baltimore County (for channelization of Herring Run)

October 18, 1951 (Liber GLB 2029 Folio 258)

Grantor: Church Home Hospital

Grantee: Robb Tyler and wife

Parcels 343 (Liber 4738 Folio 501), 345 (Liber 3830 Folio 367), 74 (Liber 4739 Folio 212) are currently owned by Baltimore County.

Parcel 9

Currently owned by Mullan Enterprises, 2330 West Joppa Road, Suite 210, Lutherville, MD 21093.

APPENDIX H - page 4

Parcel 427

October 30, 1972 (Liber 5328 Folio 190)

Grantor: The Marley Neck Patapsco Company and Robb Tyler
Grantee: Maryland State Highway Administration

Parcels 344 and 399 - Not listed

APPENDIX I

Current Property Owners

The Estate of Robb Tyler
Post Office Box 24145
Baltimore, Maryland 21227

CSX Transportation, Inc.
500 Water Street
Jacksonville, Florida 32202

Mt. Clare Properties, Inc.
6737 Southpoint Drive, South
Suite 100
Jacksonville, Florida 32216

Baltimore County, Maryland
A Body Corporate and Politic
Office of Law
Old Courthouse, 2nd Floor
400 Washington Avenue
Towson, Maryland 21204

The Mayor and City Council of Baltimore

Mullan Enterprises, Inc.
2330 West Joppa Road
Suite 210
Lutherville, Maryland 21093

SECRET
(S)

APPENDIX J

Firms Leasing Site Property

From Mt. Clare Properties, Inc.

Allied Media
Post Office Box 569
Woodstock, Vermont 05091

M.F. Winstead Company, Inc.
Post Office Box 443
Joppa, Maryland 21085

From the Estate of Robb Tyler

Browning-Ferris Industries
Post Office Box 72059
Baltimore, Maryland 21237

APPENDIX K

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston Street
P.O. BOX 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., Director

LAB NO 94-01
68TH ST. DUM
MD 174

REPORT TO:
F. Brill - Balto. Co. DEPRM
21 Besley Ave. MS 3404
Scn, MD 21204
887-3745

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY Batavia Landfill Co
SDWA ANALYSIS REPORT FORM

COLLECTOR: T.I. Bodrogi
BOTTLE NUMBER: BA MAY 0915 (2 vials)
PA METHOD: 502.2 524

SAMPLE SOURCE: 123 Philadelphia Ave.
PRESERVATION USED: 141 HCl top HCl 2 & cooled
DATA CATEGORY CODE: 4 F

☒ PRIVATE
☐ COMMUNITY
☐ NON-COMMUNITY

0,3

1,1,1

MAY

0,9,1,5,9,3

1,3,2,0

County

Plant No.

Sampling
Station

Date Collected

Time
Collected

SAMPLE TYPE

☒ SOURCE (Raw Water)
☐ DISTRIBUTION (Treated)
☐ WATER TREATMENT PLANT
(P.O.E to Distribution)

Field
Date:

1,1
pH

Chlorine Residual
0.0 0.0
Free Total

REMARKS:

CONTAMINANT	EPA CONT ID.	MCL	ACTUAL LEVEL (ppb)	CONTAMINANT	EPA CONT ID.	ACTUAL LEVEL (ppb)
RIHALOMETHANES						
romodichloromethane	2943			Bromomethane	2214	
romoform	2942			Dichlorodifluoromethane	2212	
hloroform	2941			Chloroethane	2218	
ibromochloromethane	2944			Trichlorofluoromethane	2218	
TOTAL THMs	2950	100		1,1-Dichloroethane	2978	
ELATED				m-Dichlorobenzene	2967	
benzene	2990	5		Dibromomethane	2408	
Carbon Tetrachloride	2982	5		1,1-Dichloropropene	2410	
Chlorobenzene	2989	100		trans-1,3-Dichloropropene	2224	
-Dichlorobenzene	2969	75		1,1,2,2-Tetrachloroethane	2988	
1,1-Dichloroethene	2977	7		1,3-Dichloropropane	2412	
2-Dichloroethane	2980	5		2,2-Dichloropropane	2416	
2-Dichlorobenzene	2968	600		cis-1,3-Dichloropropene	2413	
2-Dichloropropane	2983	5		o-Chlorotoluene	2965	
is-1,2-Dichloroethene	2380	70		p-Chlorotoluene	2966	
s-1,2-Dichloroethene	2979	100		Bromobenzene	2993	
ylbenzene	2992	700		1,3,5-Trimethylbenzene	2424	
tyrene	2996	100		1,2,4-Trimethylbenzene	2418	
tetrachloroethene	2987	5		1,2,3-Trichlorobenzene	2420	
Trichloroethene	2984	5		n-Propylbenzene	2998	
1,1,1-Trichloroethane	2981	200		n-Butylbenzene	2422	
oluene	2991	1000		Naphthalene	2248	
inyl Chloride	2976	2		Hexachlorobutadiene	2246	
o-Xylene	2997			Isopropylbenzene	2994	
m-Xylene	2995			1,2,3-Trichloropropane	2414	
p-Xylene	2962			1,2-Dibromo-3-Chloropropane	2931	
otal Xylenes	2955	10000		p-Isopropyltoluene	2030	
Methylene Chloride	2964	5		tert-Butylbenzene	2426	
1,1,2-Trichloroethane	2985	5		sec-Butylbenzene	2428	
2,4-Trichlorobenzene	2378	70		Bromochloromethane	2430	
UNREGULATED				1,1,1,2-Tetrachloroethane	2986	
Chloromethane	2210			1,2-Dibromoethane (EDB)	2946	
				Methyl-tert-Butyl Ether (MTBE)	2251	

RECEIVED: 9/15/93 DATE ANALYZED: 9-30-93 CHEMIST: J. Scott

100 parts per billion (micrograms per liter)
MCL - maximum contaminant level
NA - not analyzed

78

Final Report Attached

DMHM 4362 10/92

No Tentatively Identified
Compounds Found

AR000090

SUBMITTER'S COPY

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
 Laboratories Administration
 201 W. Preston St.
 P.O. Box 2355, Baltimore, Maryland 21203

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY
 EPA METHOD NUMBER: 8260

MD174

REPORT FOR DATA FILE : >E4191::D3
 ID : 940164
 LECTOR / SITE : BANAY0915
 ANT CORRECTION USED: 1.00000
 TE ANALYZED : 9/30/93 3:24

123 Philadelphia Ave

Target cmpds:

Compound	CONC	DL
CHLORODIFLUOROMETHANE	ND	10.0
CHLOROMETHANE	ND	10.0
CHLORIDE (CCC)	ND	10.0
CHLOROMETHANE	ND	10.0
CHLOROETHANE	ND	10.0
CHLOROFLUOROMETHANE	ND	10.0
CHLOROPROPANE	ND	20.0
1,1-DICHLOROETHENE	ND	5.00
ETHYLENE CHLORIDE	ND	5.00
ETHYL TERT-BUTYL ETHER	ND	5.00
TRANS-1,2-DICHLOROETHENE	ND	5.00
1,1-DICHLOROETHANE (SPCC)	ND	5.00
BUTANONE	ND	20.0
1,2-DICHLOROPROPANE	ND	5.00
1,1,2-DICHLOROETHENE	ND	5.00
CHLOROFORM (CCC)	ND	5.00
BROMOCHLOROMETHANE	ND	5.00
1,1-DICHLOROPROPENE	ND	5.00
1,1,1-TRICHLOROETHANE	ND	5.00
BROMINE TETRACHLORIDE	ND	5.00
BENZENE	ND	5.00
1,1-DICHLOROETHANE	ND	5.00
1,1-DICHLOROETHENE	ND	5.00
1,2-DICHLOROPROPANE (CCC)	ND	5.00
BROMOMETHANE	ND	5.00
BROMODICHLOROMETHANE	ND	5.00
1-METHYL-2-PENTANONE (MIBK)	ND	20.0
1,1,3-DICHLOROPROPENE	ND	5.00
BENZENE (CCC)	ND	5.00
TRANS-1,3-DICHLOROPROPENE	ND	5.00
1,2-TRICHLOROETHANE	ND	5.00
HEXANONE	ND	20.0
1,1,1,1-TETRACHLOROETHANE	ND	5.00
1,1-DICHLOROPROPANE	ND	5.00
BROMOCHLOROMETHANE	ND	5.00
BROMOMETHANE	ND	5.00
CHLOROBENZENE (SPCC)	ND	5.00
ETHYL BENZENE (CCC)	ND	5.00
1,1,1,2-TETRACHLOROETHANE	ND	5.00

79

AR000091

2ND REPORT TO:

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St.

P.O. Box 2355, Baltimore, Maryland 21203

J. Mehsen Joseph, Ph.D., Director

Lab. No. Date Received

43 9-16-93

FY94

Do not write above this line.

MULTI-ELEMENT LABORATORY

Metals Analysis Report Form

Bottle Number: BANAY0915

Name: Patavia LF Sam Naylor

INV. NO.

County: Baltimore

Source of Sample:

123 Philadelphia Ave

Collector: B. Naylor

Sample

Drinking Water

Community

Source (Raw Water)

Data Category

TYPES

Landfill

Non-Community

Distribution (Treated)

Code

(Circle)

Stream

Private

MCL

Sediment

Remarks:

713

Jnty

Plant No.

Sampling Station

Date Collected

Date & Time are Required for Valid Samples

Time

Field-Preserved

Yes ☒ No ☐

Submitter Code

(If different than County Code)

Specify Program:

SDWA

NPDES

OTHER

CODE	Element	RESULTS	CODE	Element	RESULTS
01097	Antimony		01105	Aluminum	4.29-93 AA 20.025
01002	Arsenic	9-24 20.01	00918	Calcium	9-19-93 PT 2.0
01007	Barium	9-20-93 20.1	01045	Iron	9-19-93 PT 20.05
01012	Beryllium		00927	Magnesium	
01027	Cadmium	10-1-93 20.005	01055	Manganese	9-20-93 0.02
01034	Chromium	9-17-93 20.01	00937	Potassium	10-5-93 25.10
01042	Copper	9-20-93 0.05	00929	Sodium	9-19-93 PT 2.4
01051	Lead	9-20-93 AA 20.01	01092	Zinc	9-20-93 20.05
71900	Mercury	9-20-93 20.005			
01067	Nickel	9-20-93 20.1			
01147	Selenium	9-22 20.01			
01077	Silver				
01059	Thallium				

* Results reported in milligrams per liter (ppm)

Analyst

Section Chief

D. Seidman

Date Reported

10/5/93

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratory Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., Director

Lab No. Date Received

0001064 816 8

WATER ANALYSIS

Do not write above this line.

Bottle Number BANAY0915 Name Bayanagi Sam Naylor County Baltimore County Code 0
Source 123 Philadelphia Ave Date Category Code 4
Collected: Date 09-15-93 Time 1320 Collector & Phone T. Badrogi - 887-3745 Submitter Code

CHECK (one per box)

Drinking Water... ☒ Community ☐ Non-community ☐ Private ☐ Other ☐
Landfill ☐ Source (raw water) ☐
Stream ☐ Distribution (treated) ☐
Other ☐ MCL ☐ Emergency Routine Recheck Special ☐ Federal Project ☐

Plant No. Sampling Station NAY Preservation: Iced ☒ Acid ☒ Type of Acid H₂SO₄
pH Chlorine: Free 0.0 Total 0.0 Specific Conductance

Notes to Lab/Remarks:

TESTS	CODES	ERROR CODE	GL	RESULTS	DATE ANALYZED	ANALYST INITIALS
Alkalinity (Total)	00410					
Alkalinity, Ca CO ₃ Sat.	74023					
Ammonia - N	00608			<0.2	9/16/93	DUB
Chloride	00940			4	9/17/93	D.T.
Color*	00081					
Conductance*, spec.	00095					
Dissolved Solids	70300			18.	9/27	WFR
Hardness	00900		L	6.	9/27/93	J. M
Fluoride	00951					
Nitrite, N	00615		L	0.002	9/27/93	E.K
Nitrate - Nitrate, N	00630		L	0.2	9-17-93	D. B.
pH*, Ca CO ₃ SAT	70311					
Sulfate	00945			5.6	9/29/93	D.T.
Total Solids	00500					
Turbidity*	00076		L	0.5	9/16/93	D.E.
Other:						

* Results reported in Units. all others in milligrams per liter (ppm)

Number of Tests Requested 81

Asoka I. Katumuluwa
Section Chief

Date

AR000093

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

68' ST. DUR
LAB NO. 01143
(MD-174)

Laboratories Administration

201 W. Preston Street
P.O. BOX 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., Director

END REPORT TO:

S.F. Brill - Balto. Co. DEPRM
71 Besley Ave., MS 3404
5641 MD 21204
887-3745

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY Batavia Landfill Co
SDWA ANALYSIS REPORT FORM Mike LaCetti

COLLECTOR: T.I. Badrogi
BOTTLE NUMBER: BA LAC 0915 (2 vials)
PA METHOD: 502.2 524

SAMPLE SOURCE: 101 Philadelphia Ave.
PRESERVATION USED: 1+1 HCl to pH < 2.0 cool.
DATA CATEGORY CODE: 4 F

☒ PRIVATE
☐ COMMUNITY
☐ NON-COMMUNITY
County 013 Plant No. 111 Sampling Station LAC Date Collected 09.11.93 Time Collected 111

SAMPLE TYPE
☒ SOURCE (Raw Water)
☐ DISTRIBUTION (Treated)
☐ WATER TREATMENT PLANT
(P.O.E to Distribution)
Field Data: pH 1.1 Chlorine 1 Residual 1
Free 1 Total 1

REMARKS:

CONTAMINANT	EPA CONT ID.	MCL	ACTUAL LEVEL (ppb)	CONTAMINANT	EPA CONT ID.	ACTUAL LEVEL (ppb)
TRIHALOMETHANES						
Bromodichloromethane	2943			Bromomethane	2214	
Chloroform	2942			Dichlorodifluoromethane	2212	
Chloroform	2941			Chloroethane	2216	
Dibromochloromethane	2944			Trichlorofluoromethane	2218	
TRIHALOMETHANES	2950	100		1,1-Dichloroethane	2978	
Unregulated				m-Dichlorobenzene	2967	
benzene	2990	5		Dibromomethane	2408	
Carbon Tetrachloride	2982	5		1,1-Dichloropropene	2410	
Chlorobenzene	2989	100		trans-1,3-Dichloropropene	2224	
Dichlorobenzene	2969	75		1,1,2,2-Tetrachloroethane	2988	
1-Dichloroethene	2977	7		1,3-Dichloropropane	2412	
1,2-Dichloroethane	2980	5		2,2-Dichloropropane	2416	
1,2-Dichlorobenzene	2968	600		cis-1,3-Dichloropropene	2413	
2-Dichloropropane	2983	5		o-Chlorotoluene	2965	
trans-1,2-Dichloroethene	2380	70		p-Chlorotoluene	2966	
trans-1,2-Dichloroethene	2979	100		Bromobenzene	2993	
Ethylbenzene	2992	700		1,3,5-Trimethylbenzene	2424	
Styrene	2996	100		1,2,4-Trimethylbenzene	2418	
Trichloroethene	2987	5		1,2,3-Trichlorobenzene	2420	
Chloroethane	2984	5		n-Propylbenzene	2998	
Chloroethane	2981	200		n-Butylbenzene	2422	
Chloroethane	2991	1000		Naphthalene	2248	
Chloroethane	2976	2		Hexachlorobutadiene	2246	
Chloroethane	2997	3		Isopropylbenzene	2994	
Chloroethane	2995			1,2,3-Trichloropropane	2414	
Xylene	2982			1,2-Dibromo-3-Chloropropane	2931	
Meta-Xylene	2955	10000		p-Isopropyltoluene	2030	
Ethylene Chloride	2984	5		tert-Butylbenzene	2426	
1,1,2-Trichloroethane	2985	5		sec-Butylbenzene	2428	
2,4-Trichlorobenzene	2378	70		Bromochloromethane	2430	
Unregulated				1,1,1,2-Tetrachloroethane	2986	
Chloromethane	2210			1,2-Dibromoethane (EDB)	2946	
				Methyl-tert-Butyl Ether (MTBE)	2251	

RECEIVED: 9/15/93 DATE ANALYZED: 9-30-93 CHEMIST: V. LaCetti

ppb - parts per billion (micrograms per liter)
GL - maximum contaminant level
A - not analyzed

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL-HYGIENE
Laboratories Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY
EPA METHOD NUMBER: 8260

MD-174

101 Philadelphia Ave

REPORT FOR DATA FILE : >E4206:1D3
S ID : 940154
COLLECTOR / SITE : BALAC0915
QUANT CORRECTION USED: 1.00000
DATE ANALYZED : 9/30/93 21:40

Target cmpds:

Compound	CONC	DL
1,1-DICHLORODIFLUOROMETHANE	ND	10.0
1,1-DICHLOROMETHANE	ND	10.0
VINYL CHLORIDE (CCC)	ND	10.0
BROMOMETHANE	ND	10.0
1,1-DICHLOROETHANE	ND	10.0
1,1,1-TRICHLOROETHANE	ND	10.0
ACETONE	ND	20.0
1,1-DICHLOROETHENE	ND	5.00
ETHYLENE CHLORIDE	ND	5.00
ETHYL TERT-BUTYL ETHER	ND	5.00
TRANS-1,2-DICHLOROETHENE	ND	5.00
1,1-DICHLOROETHANE (SPCC)	ND	5.0
2-BUTANONE	ND	20.0
1,2-DICHLOROPROPANE	ND	5.00
1,3-DICHLOROETHENE	ND	5.00
CHLOROFORM (CCC)	ND	5.00
BROMOCHLOROMETHANE	ND	5.00
1,1-DICHLOROPROPENE	ND	5.00
1,1,1-TRICHLOROETHANE	ND	5.00
PERFLUOROTETRACHLORIDE	ND	5.00
BENZENE	ND	5.00
1,2-DICHLOROETHANE	ND	5.00
1,1-DICHLOROETHENE	ND	5.00
1,2-DICHLOROPROPANE (CCC)	ND	5.00
BROMOMETHANE	ND	5.00
BROMODICHLOROMETHANE	ND	5.00
4-METHYL-2-PENTANONE (MIBK)	ND	20.0
1,3-DICHLOROPROPENE	ND	5.00
CHLOROBENZENE (CCC)	ND	5.00
TRANS-1,3-DICHLOROPROPENE	ND	5.00
1,1,2-TRICHLOROETHANE	ND	5.00
2-HEXANONE	ND	20.0
TETRACHLOROETHENE	ND	5.00
1,3-DICHLOROPROPANE	ND	5.00
BROMOCHLOROMETHANE	ND	5.00
1,1-DICHLOROETHANE	ND	5.00
CHLOROBENZENE (SPCC)	ND	5.0
VINYL BENZENE (CCC)	ND	5.00
1,1,1,2-TETRACHLOROETHANE	ND	5.00

83

AR000095

REPORT TO:

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., DirectorMULTI-ELEMENT LABORATORY
Metals Analysis Report Form

Lab No. Date Received

44 9-16-93
FY9

Do not write above this line.

Bottle: BALAC0915
Number:

Name:

Botavia, L.F. - Mike Toth

County:

Baltimore

Source of Sample:

101 Philadelphia Ave

Street

Town or City

Collector:

T. B. Toth 887 374

(Include Telephone Number)

Sample
TYPES

(Circle):

Drinking Water

Landfill

Stream

Other

Community

Non-Community

Private

Other

Source (Raw Water)

Distribution (Treated)

MCL

Sediment

Data Category

Code

(See Reverse)

4A

Remarks:

03

County

Plant No.

LAC

Sampling Station

091593

Date Collected

Date & Time
are Required
for Valid Samples

1345

Time

Field Preserved

Yes ☒ No ☐

Preservative Used:

HNO₃

Submitter Code

(If different
than County Code)

(See Reverse)

Specify Program:

SDWA: ☒NPDES: ☐OTHER: ☐

CODE	Element	RESULTS *	CODE	Element	RESULTS *
01097	Antimony		01105	Aluminum SH 9-20-93	0.07
01002	Arsenic 9-29-93	<0.01	00916	Calcium 9-17-93	4.4
01007	Barium SH 9-20-93	<0.1	01045	Iron 9-17-93	<0.05
01012	Beryllium		00927	Magnesium	
01027	Cadmium 10-1-93	<0.005	01055	Manganese SH 9-20-93	0.16
01034	Chromium SH 9-27-93	<0.01	00937	Potassium 10-5-93	5.0
01042	Copper SH 9-20-93	0.39	00929	Sodium 9-17-93	8.9
01051	Lead 9-20-93	0.07	01092	Zinc SH 9-20-93	0.08
71900	Mercury 9-22-93	<0.0005			
01062	Nickel SH 9-20-93	<0.1			
01147	Selenium 9-22-93	<0.01			
01077	Silver				
01059	Thallium				

* Results reported in milligrams per liter (ppm)

Analyst

Section Chief

D. Sordalica

Date Reported

10/15/93

10/14/41
(en)

0391367 316 55

Do not write above this line:

Notes to Lab/Remarks:

AR000097

SEP 30 1993

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston Street
P.O. BOX 2355, Baltimore, Maryland 21203
J. Mehnen Joseph, Ph.D., Director

ORIGINAL
(Red)

LAB NO. SL-01
68th St. Dur
MD-174

REPORT TO:
Brill-Ball Co. DEPRM
501 Besley Ave. MS 3404
Wich, MD 21204
387-3745

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY Batavia Landfill Co
SDWA ANALYSIS REPORT FORM Poul Beckman

COLLECTOR: T.J. Bodrogi
BOTTLE NUMBER: BA BEC 0915 (2 vials)
PA METHOD: 502.2 524

SAMPLE SOURCE: 125 Philadelphia Ave.
PRESERVATION USED: 141 HCl top H₂O cooled
DATA CATEGORY CODE: 4 5

☒ PRIVATE
☐ COMMUNITY
☐ NON-COMMUNITY

013
County

1 1 1
Plant No.

181EC
Sampling
Station

019115913
Date Collected

113010
Time
Collected

SAMPLE TYPE

☒ SOURCE (Raw Water)
☐ DISTRIBUTION (Treated)
☐ WATER TREATMENT PLANT
(P.O.E to Distribution)

Field
Date: 1 1
PM

Chlorine Residual
00 00
Free Total

RE. MARKS:

CONTAMINANT	EPA CONT ID.	MCL	ACTUAL LEVEL (ppb)	CONTAMINANT	EPA CONT ID.	ACTUAL LEVEL (ppb)
TRICHALOMETHANES						
Bromodichloromethane	2943			Bromomethane	2214	
Chloroform	2942			Dichlorodifluoromethane	2212	
Chloroform	2941			Chloroethane	2216	
Dibromochloromethane	2944			Trichlorofluoromethane	2218	
TOTAL THM ₈	2950	100		1,1-Dichloroethane	2978	
REGULATED				m-Dichlorobenzene	2967	
Benzene	2990	5		Dibromomethane	2408	
Carbon Tetrachloride	2982	5		1,1-Dichloropropene	2410	
Chlorobenzene	2989	100		trans-1,3-Dichloropropene	2224	
o-Dichlorobenzene	2969	75		1,1,2,2-Tetrachloroethane	2988	
1,1-Dichloroethane	2977	7		1,3-Dichloropropene	2412	
1,2-Dichloroethane	2980	5		2,2-Dichloropropene	2416	
1,2-Dichlorobenzene	2968	600		cis-1,3-Dichloropropene	2413	
1,2-Dichloropropane	2983	5		o-Chlorotoluene	2965	
cis-1,2-Dichloroethene	2380	70		p-Chlorotoluene	2966	
trans-1,2-Dichloroethene	2979	100		Bromobenzene	2993	
Ethylbenzene	2992	700		1,3,5-Trimethylbenzene	2424	
Styrene	2996	100		1,2,4-Trimethylbenzene	2418	
Tetrachloroethene	2987	5		1,2,3-Trichlorobenzene	2420	
Trichloroethene	2984	5		n-Propylbenzene	2998	
1,1,1-Trichloroethane	2981	200		n-Butylbenzene	2422	
Toluene	2991	1000		Naphthalene	2248	
Vinyl Chloride	2976	2		Hexachlorobutadiene	2246	
o-Xylene	2997			Isopropylbenzene	2994	
m-Xylene	2995			1,2,3-Trichloropropane	2414	
p-Xylene	2962			1,2-Dibromo-3-Chloropropane	2931	
Total Xylenes	2953	10000		p-Isopropyltoluene	2030	
Methylene Chloride	2964	5		tert-Butylbenzene	2426	
1,1,2-Trichloroethane	2965	5		sec-Butylbenzene	2428	
1,2,4-Trichlorobenzene	2378	70		Bromochloromethane	2430	
UNREGULATED				1,1,1,2-Tetrachloroethane	2986	
Bromomethane	2210			1,2-Dibromoethane (EDB)	2946	
				Methyl-tert-Butyl Ether (MTBE)	2251	

DATE RECEIVED: 9/15/93 DATE ANALYZED: 9-29-93 CHEMIST: V. E. S.

ppb - parts per billion (micrograms per liter)
MCL - maximum contaminant level
NA - not analyzed

86

Final Report Attached

AR0000098

No Tentatively Identified

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY
EPA METHOD NUMBER: 8260

MD-174

125 Philadelphia Ave.

ORT FOR DATA FILE : >E4187::D3
ID : 940164
LECTOR / SITE : BABEC0915
RT CORRECTION USED: 1.00000
E ANALYZED : 9/29/93 23:12

get cmpds:

Compound	CONC	DL
FLUORODIFLUOROMETHANE	ND	10.0
CHLOROMETHANE	ND	10.0
ETHYL CHLORIDE (CCC)	ND	10.0
ISOBUTYROMETHANE	ND	10.0
PROETHANE	ND	10.0
CHLOROFLUOROMETHANE	ND	10.0
ETHYLENE	ND	20.0
-DICHLOROETHENE	ND	5.00
ETHYLENE CHLORIDE	ND	5.00
ETHYL TERT-BUTYL ETHER	ND	5.00
TRANS-1,2-DICHLOROETHENE	ND	5.00
-DICHLOROETHANE (SPCC)	ND	5.00
PENTANONE	ND	20.0
-DICHLOROPROPANE	ND	5.00
-1,2-DICHLOROETHENE	ND	5.00
PROPANOL (CCC)	ND	5.00
MONOCHLOROMETHANE	ND	5.00
-1-CHLOROPROPENE	ND	5.00
-1,1-TRICHLOROETHANE	ND	5.00
PERFLUOROTETRACHLORIDE	ND	5.00
ETHYLENE	ND	5.00
-DICHLOROETHANE	ND	5.00
CHLOROETHENE	ND	5.00
-DICHLOROPROPANE (CCC)	ND	5.00
ISOBUTYROMETHANE	ND	5.00
MONOCHLOROMETHANE	ND	5.00
ETHYL-2-PENTANONE (MIBK)	ND	20.0
-1,3-DICHLOROPROPENE	ND	5.00
ETHYLENE (CCC)	ND	5.00
TRANS-1,3-DICHLOROPROPENE	ND	5.00
-1,2-TRICHLOROETHANE	ND	5.00
HEXANONE	ND	20.0
TRICHLOROETHENE	ND	5.00
-DICHLOROPROPANE	ND	5.00
MONOCHLOROMETHANE	ND	5.00
PROETHANE	ND	5.00
PROBENZENE (SPCC)	ND	5.00
ETHYL BENZENE (CCC)	ND	5.00
-1,2-TETRACHLOROETHANE	ND	5.00

87

AR000099

REPORT TO:
Baltimore DEPRM
P.O. Box 21204
887-3745

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., Director
MULTI-ELEMENT LABORATORY
Metals Analysis Report Form

Lab No. 38 Date Received 9-16-93
F499
Do not write above this line.

Bottle Number: BARBEC0915 Name: Baltimore - Paul Beckman County: Baltimore
Source of Sample: 125 Philadelphia Ave Street: Town or City: Collector: T. Boalroq, 887-3745
(Include Telephone Number)
Sample TYPE: Drinking Water Community Source (Raw Water) Data Category 4E
Landfill Non-Community Distribution (Treated) Code
(Circle): Stream Private MCL
Other Other Sediment
Remarks:

03 Plant No. REC Date Collected 09/15/93 Date & Time are Required for Valid Samples 1300 Field Preserved Yes No
Submitter Code (If different than County Code) Specify Program: SOWA: NPDES: OTHER: HNO3
(See Reverse)

CODE	Element	RESULTS	CODE	Element	RESULTS
01097	Antimony		01105	Aluminum	9-27-93 AA <0.025
01002	Arsenic	9-24-93 AA <0.01	00916	Calcium	9-17-93 FTS <1.0
01007	Barium	9-9-20-93 <0.1	01045	Iron	9-17-93 FTS 0.10
01012	Beryllium		00927	Magnesium	
01027	Cadmium	10-1 Y1 <0.005	01055	Manganese	9-20-93 0.03
01034	Chromium	9-27-93 <0.01	00937	Potassium	10-5 Y1 <1.0
01042	Copper	9-20-93 0.21	00929	Sodium	9-17-93 FTS 2.5
01051	Lead	9-20-93 AA 0.01	01092	Zinc	9-20-93 <0.05
71900	Mercury	9-22-93 <0.005			
01067	Nickel	9-20-93 <0.1			
01147	Selenium	9-22-93 AA <0.01			
01077	Silver				
01059	Thallium				

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratory Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Nielsen Joseph, Ph.D., Director

Lab No. Date Received

C301351 816 5

WATER ANALYSIS

Do not write above this line.

Bottle Number BABEC0915 Name Batavia L.F. - Paul Beckman County Ba/Hg County Code 03

Source 125 Philadelphia Ave Date Category Code 4F

Collected: Date 09-15-93 Time 1300 Collector & Phone T. Brodsky 887-3745 Submitter Code

CHECK (one per box)

Drinking Water <input type="checkbox"/>	Community <input type="checkbox"/>	Source (raw water) <input type="checkbox"/>	Emergency <input type="checkbox"/>
Landfill <input type="checkbox"/>	Non-community <input type="checkbox"/>	Distribution (treated) <input type="checkbox"/>	Routine <input type="checkbox"/>
Stream <input type="checkbox"/>	Private <input type="checkbox"/>	MCL <input type="checkbox"/>	Recheck <input type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>		Special <input type="checkbox"/>

Federal Project ☐

Plant No. Sampling Station BEC Preservation: Iced ☐ Acid ☒ Type of Acid H₂SO₄

pH Chlorine: Free UC Total UC Specific Conductance

Notes to Lab/Remarks:

CK	TESTS	CODES	ERROR CODE	GL	RESULTS	DATE ANALYZED	ANALYST INITIALS
	Alkalinity (Total)	00410					
	Alkalinity, Ca CO ₃ Sat.	74023					
	Ammonia - N	00608			<0.2	9/16/93	DLB
	Chloride	00940			5	9/17/93	D.T.
	Color*	00081					
	Conductance*, spec.	00095					
	Dissolved Solids	70300			18	9/27	WPK
	Hardness: 1	00900					
	Fluoride	00951					
	Nitrite, N	00615		L	0.002	9/28/93	EX
	Nitrate - Nitrate, N	00630			0.6	9-17-93	D.
	pH*, Ca CO ₃ SAT	70311					
	Sulfate	00945			2.0	9/29/93	D.T.
	Total Solids	00500					
	Turbidity*	00076		L	0.5	9/16/93	D.T.
	Other:						

* Results reported in Units, all others in milligrams per liter (ppm)

Number of

89

Asoka I. Katumuluwa

Date

SEP 30 1993

AR000101

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

LAB NO 94304

201 W. Preston Street

P.O. BOX 2355, Baltimore, Maryland 21203

J. Mahsen Joseph, Ph.D., Director

REPORT TO:

F. Brill-Ba Ho. Co. DEPRM
Basley Ave. MS 3404
Scn, MD 21204

887-3745

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY Batavia Landfill Cas
SDWA ANALYSIS REPORT FORM

COLLECTOR: T.J. Bedrogl
BOTTLE NUMBER: BA WAR 0915
EPA METHOD: 502.2 524

SAMPLE SOURCE: Eric Warthen
137 Philadelphia Ave.
PRESERVATION USED: 1:1 HCl to pH 2 & code
DATA CATEGORY CODE: 4 F

☐ PRIVATE
☐ COMMUNITY
☐ NON-COMMUNITY

013

County

Plant No.

WAR

Sampling
Station

0.9.1.5.9.3

Date Collected

11.2.95

Time
Collected

SAMPLE TYPE

☐ SOURCE (Raw Water)
☐ DISTRIBUTION (Treated)
☐ WATER TREATMENT PLANT
(P.O.E to Distribution)

Field
Date:

pH

Chlorine

Residual

Free

Total

REMARKS:

CONTAMINANT	EPA CONT ID.	MCL	ACTUAL LEVEL (ppb)	CONTAMINANT	EPA CONT ID.	ACTUAL LEVEL (ppb)
HALOMETHANES						
monochloromethane	2943			Bromomethane	2214	
monochloromethane	2942			Dichlorodifluoromethane	2212	
monochloromethane	2941			Chloroethane	2216	
monochloromethane	2944			Trichlorofluoromethane	2218	
THMs	2950	100		1,1-Dichloroethane	2978	
REGULATED				m-Dichlorobenzene	2967	
benzene	2990	5		Dibromomethane	2408	
Carbon Tetrachloride	2982	5		1,1-Dichloropropene	2410	
chlorobenzene	2989	100		trans-1,3-Dichloropropene	2224	
Dichlorobenzene	2969	75		1,1,2,2-Tetrachloroethane	2988	
1-Dichloroethane	2977	7		1,3-Dichloropropane	2412	
2-Dichloroethane	2980	5		2,2-Dichloropropane	2416	
Dichlorobenzene	2968	600		cis-1,3-Dichloropropene	2413	
Dichloropropane	2983	5		o-Chlorotoluene	2965	
1,1-Dichloroethane	2380	70		p-Chlorotoluene	2966	
trans-1,2-Dichloroethane	2979	100		Bromobenzene	2993	
styrene	2992	700		1,3,5-Trimethylbenzene	2424	
trichloroethane	2987	100		1,2,4-Trimethylbenzene	2418	
1,1-Trichloroethane	2981	200		1,2,3-Trichlorobenzene	2420	
luene	2991	1000		n-Propylbenzene	2998	
nyl Chloride	2976	2		n-Butylbenzene	2422	
Xylene	2997			Naphthalene	2248	
Xylene	2995			Hexachlorobutadiene	2246	
Xylene	2982			Isopropylbenzene	2994	
total Xylenes	2955	10000		1,2,3-Trichloropropane	2414	
ethylene Chloride	2964	5		1,2-Dibromo-3-Chloropropane	2931	
2-Trichloroethane	2985	5		p-Isopropyltoluene	2030	
4-Trichlorobenzene	2378	70		tert-Butylbenzene	2426	
REGULATED				sec-Butylbenzene	2428	
chloromethane	2210			Bromochloromethane	2430	
				1,1,1,2-Tetrachloroethane	2986	
				1,2-Dibromoethane (EDB)	2946	
				Methyl-tert-Butyl Ether (MTBE)	2251	

RECEIVED: 9/15/93 DATE ANALYZED: 9-30-93 CHEMIST: V. F. S.

parts per billion (micrograms per liter)
maximum contaminant level
not analyzed

90

Final Report Attached

MH 4362 10/92

AR000102

No Tentatively Identified
Compounds Found

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratory Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Mehsen Joseph, Ph.D., Director

Lab No. Date Received 9/16/93

1301060 816 5

WATER ANALYSIS

Do not write above this line.

Bottle Number BAWAR0915 Name Batrua L F Eric Warthen County Ba 1 to Co County Code 01
Source 137 Philadelphia Ave Date Category 4
Collected: Date 09-15-93 Time 12:45 Collector & Phone T Batrua 887-3245 Submitter Code
CHECK (one per box)
Drinking Water ☒ Community ☐ Source (raw water) ☒ Emergency ☐
Landfill ☐ Non-community ☐ Distribution (treated) ☐ Routine ☐
Stream ☐ Private ☐ MCL ☐ Recheck ☐
Other ☐ Other ☐ Federal Project ☐ Special ☐

Plant No. Sampling Station WAR Preservation: Iced ☒ Acid ☒ Type of Acid H2SO4
pH Chlorine: Free 0.0 Total 0.0 Specific Conductance

Notes to Lab/Remarks:

TESTS	CODES	ERROR CODE	G/L	RESULTS	DATE ANALYZED	ANALYST INITIALS
Alkalinity (Total)	00410					
Alkalinity, Ca CO ₃ Sat.	74023					
Ammonia - N	00608			40.2	9/16/93	DLB
Chloride	00940			12	9/17/93	D.T
Color*	00081					
Conductance*, spec.	00095					
Dissolved Solids	70300			42	9/27	WAR
Hardness	00900					
Fluoride	00951					
Nitrite, N	00615		L	0.002	9/28/93	Ek
Nitrate - Nitrate, N	00630			3.6	9-17-93	D.B.
pH*, Ca CO ₃ SAT	70311					
Sulfate	00945		L	2.0	9/29/93	D.T.
Total Solids	00500					
Turbidity*	00076		L	0.5	9/16/93	D.T
Other:						

* Results reported in Units, all others in milligrams per liter (ppm)

Number of 3 117

91 AR000103

Date SEP 30 1993

REPORT TO:

Bell - Bello DEPRM
21 Pringle Ave MS 3404
Towson, Md 21204
887-3745

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration

201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203
J. Mehan Joseph, Ph.D., Director

MULTI-ELEMENT LABORATORY
Metals Analysis Report Form

Lab No. Date Received

37 9-16-
FY9
Do not write above this line

Bottle Number: BAWAR0915 Name: Batavia Eric Worthen

INV. NO.

County: Rd 1A

Source of Sample: 137 Philadelphia Ave

Collector: L. Bedlog, 887-
(Include Telephone Number)

Sample TYPES: (Circle)
Drinking Water Community Source (Raw Water)
Landfill Non-Community Distribution (Treated)
Stream Private MCL
Other Other Sediment
Data Category Code 4F
(See Reverse)

Remarks:

03

County

Plant No.

Plant No.

WAR

Sampling Station

091593

Date Collected

Date & Time are Required for Valid Samples

1245

Time

Field Preserved Yes ☒ No ☐

Submitter Code (If different than County Code)

(See Reverse)

Specify Program:

SDWA:

NPDES:

OTHER:

Preservative Use

HNO₃

✓	CODE	Element	RESULTS	✓	CODE	Element	RESULTS
	01087	Antimony			01105	Aluminum	0.04
	01002	Arsenic	< 0.01		00916	Calcium	2.0
	01007	Barium	< 0.1		01045	Iron	< 0.05
	01012	Beryllium			00927	Magnesium	
	01027	Cadmium	< 0.005		01055	Manganese	0.08
	01034	Chromium	< 0.01		00937	Potassium	< 1.0
	01042	Copper	1.05		00929	Sodium	6.4
	01051	Lead	0.04		01092	Zinc	0.09
	71900	Mercury	< 0.0005				
	01067	Nickel	< 0.1				
	01147	Selenium	< 0.01				
	01077	Silver					
	01059	Thallium					

* Results reported in milligrams per liter (ppm)

Analyst

Section Chief

D. Suddalman

Date Reported

10/5/93

Laboratories Administration
201 W. Preston St.
P.O. Box 2355, Baltimore, Maryland 21203

ORIGINAL
(101)

GAS CHROMATOGRAPHY-MASS SPECTROMETRY LABORATORY
EPA METHOD NUMBER: 8260

MD-174

REPORT FOR DATA FILE : >E41931:D3
LAB ID : 940164
COLLECTOR / SITE : BAWAR0915
QUANT CORRECTION USED: 1.00000
DATE ANALYZED : 9/30/93 5:31

137 Philadelphia
Avenue

Target cmpds:

Compound	CONC	DL
DICHLORODIFLUOROMETHANE	ND	10.0
CHLOROMETHANE	ND	10.0
VINYL CHLORIDE (CCC)	ND	10.0
BROMOMETHANE	ND	10.0
CHLOROETHANE	ND	10.0
TRICHLOROFLUOROMETHANE	ND	10.0
ACETONE	ND	20.0
1,1-DICHLOROETHENE	ND	5.00
METHYLENE CHLORIDE	ND	5.00
METHYL TERT-BUTYL ETHER	ND	5.00
TRANS-1,2-DICHLOROETHENE	ND	5.00
1,1-DICHLOROETHANE (SPCC)	ND	5.00
2-BUTANONE	ND	20.0
2,2-DICHLOROPROPANE	ND	5.00
CIS-1,2-DICHLOROETHENE	ND	5.00
CHLOROFORM (CCC)	ND	5.00
BROMOCHLOROMETHANE	ND	5.00
1,1-DICHLOROPROPENE	ND	5.00
1,1,1-TRICHLOROETHANE	ND	5.00
CARBON TETRACHLORIDE	ND	5.00
BENZENE	ND	5.00
1,2-DICHLOROETHANE	ND	5.00
TRICHLOROETHENE	ND	5.00
1,2-DICHLOROPROPANE (CCC)	ND	5.00
DIBROMOMETHANE	ND	5.00
BROMODICHLOROMETHANE	ND	5.00
1-METHYL-2-PENTANONE (MIBK)	ND	20.0
CIS-1,3-DICHLOROPROPENE	ND	5.00
TOLUENE (CCC)	ND	5.00
TRANS-1,3-DICHLOROPROPENE	ND	5.00
1,1,2-TRICHLOROETHANE	ND	5.00
2-HEXANONE	ND	20.0
TETRACHLOROETHENE	ND	5.00
1,3-DICHLOROPROPANE	ND	5.00
DIBROMOCHLOROMETHANE	ND	5.00
IBROMOETHANE	ND	5.00
CHLOROBENZENE (SPCC)	ND	5.00
METHYL BENZENE (CCC)	ND	5.00
1,1,2-TETRACHLOROETHANE	ND	5.00

ORIGINAL
(Page 2 of 2)

ATTACHMENT I

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION III
CENTRAL REGIONAL LABORATORY
201 DEFENSE HIGHWAY
SUITE 200
ANNAPOLIS, MARYLAND 21401

QUALITY
ASSURANCE
BRANCH

DATE : September 10, 1993
SUBJECT: Region III Data QA Review
FROM : Cynthia E. Caporale *C. Caporale*
Region III ESAT RPO (3ES30)
TO : - Ginny Sells
State of Maryland

Attached is the inorganic data validation report for the 68TH Street Dump Site (Case 20101) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me at (410) 573-6832.

Attachment

cc: Michael Taurino, RPM, w/o attachment (3HW73)
Monica Jones, Region III, State Coordinator (3ES32)

TID File: 03930420 Task 3355

CERCLA

SEP 15 1993

Projects Division



Environmental Services Assistance Teams
Region 3
1419 Forest Drive, Suite 104
Annapolis, Maryland 21403

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DATE: SEPTEMBER 08, 1993

SUBJECT: INORGANIC DATA VALIDATION, Case 20101
SITE: 68TH STREET DUMP

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OVERVIEW

The set of samples for Case 20101 consisted of twenty nine (29) soil and fifteen (15) aqueous samples. Included in the case were one (1) aqueous field blank, two (2) soil and one (1) aqueous field duplicate pair. Samples were analyzed according to the Contract Laboratory Program (CLP) Routine Analytical Services (RAS) Statement of Work (SOW) ILM02.1.

Several samples exceeded the Chemical Health Advisory Level of the lead (Pb) analyte. See Table - 4.

SUMMARY

All analytes were successfully analyzed in all samples except arsenic (As) and selenium (Se) in sample delivery group (SDG) MCJB46. Areas of concern with respect to data usability are listed according to the seriousness of the problem. The laboratory reported the data in four (4) separate SDGs. The data were reviewed and validated on an SDG basis.

MAJOR PROBLEMS

The contract required detection limit (CRDL) standard recovery fell below 50% for the As and Se analytes in SDG MCJB46. The quantitation limits for these analytes in the affected samples are unusable and have been qualified "R". The positive result for Se in sample MCJB46 may be biased extremely low and has been qualified "L".

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MINOR ISSUES

The aqueous field blank (FB) had reported results greater than the Instrument Detection Limit (IDL) for the analytes listed below. The reported results in the affected samples which were less than five times (<5x) the blank concentrations for these analytes may be biased high and have been qualified "B".

<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
aluminum (Al)	MCJB18, MCJB20 MCJB44, MCJB46	Soil Aqueous
calcium (Ca)	MCJB18, MCJB20	Soil
iron (Fe)	MCJB44, MCJB46	Aqueous
Pb	MCJB44, MCJB46	Aqueous
manganese (Mn)	MCJB44, MCJB46	Aqueous
sodium (Na)	MCJB18, MCJB20	Soil
zinc (Zn)	MCJB44, MCJB46	Aqueous

The continuing calibration blank (CCB) had reported results greater than the IDL for the analytes listed below. The reported results which were <5x the blank concentrations for these analytes may be biased high and have been qualified "B".

<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
beryllium (Be)	MCJB18, MCJB20	Soil
cadmium (Cd)	MCJB44	Aqueous
copper (Cu)	MCJB44	Aqueous
Pb	MCJB46	Aqueous

The CRDL standard recoveries were high (>110%) and the matrix spike and/or analytical spike recoveries were low (<75%, <85%, respectively) for the As analyte in SDG MCJB18 and for the Se analyte SDGs MCJB18 and MCJB20, resulting in an opposing bias effect. The reported results in the affected samples for these analytes are estimated and have been qualified "J".

The laboratory duplicate results were outside of the control limits (35% RPD, $\pm 2 \times \text{CRDL}$) for the chromium (Cr) and manganese (Mn) analytes in soil samples in SDG MCJB20 and for the Pb analyte in aqueous samples (20% RPD, $\pm \text{CRDL}$) in SDG MCJB46. The reported results for these analytes in these SDGs are estimated and have been qualified "J". However, the qualifier "J" has been superseded by the previously mentioned qualifier "B" for the Pb analyte.

The ICP serial dilution result was outside of the 10% control limit for the Fe analyte in aqueous samples in SDG MCJB44. The reported results for this analyte are estimated and have been qualified "J". However, samples MCJB44 and MCJB59 have previously been qualified "B" due to blank contamination.

The correlation coefficient of the MSA for the Se analyte in samples MCJB25 and MCJB37 (SDG MCJB18) and for the Pb analyte in sample MCJB36 (SDG MCJB20) were less than 0.995. The reported results for these analytes in these samples are estimated and have been qualified "J".

CRDL standard recovery was high (>110%) for the analytes listed below. The reported results which were >IDL but <2xCRDL may be biased high and have been qualified "K".

<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
As	MCJB44	Aqueous
Cd	MCJB18, MCJB20 MCJB44*	Soil Aqueous
Pb	MCJB46*	Aqueous
Se	MCJB18**, MCJB20**	Soil
silver (Ag)	MCJB20	Soil

* Superseded by the qualifier "B", previously mentioned.

** Superseded by the qualifier "J", previously mentioned.

The CRDL standard recovery was low (50%-<90%) for the analytes listed below. The quantitation limits and the reported results which were >IDL but <2xCRDL may be biased low and have been qualified "UL" and "L", respectively.

<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
antimony (Sb)	MCJB18 MCJB46	Soil Aqueous
Cu	MCJB46	Aqueous
Cr	MCJB44, MCJB46	Aqueous
nickel (Ni)	MCJB44	Aqueous
thallium (Tl)	MCJB20 MCJB46	Soil Aqueous

The matrix spike recoveries were low (30% - 74%) for the analytes listed below. The quantitation limits and reported results may be biased low for these analytes and have been qualified "UL" and "L", respectively.

<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
Sb	MCJB18, MCJB20	Soil
As	MCJB18, MCJB20	Soil
Se	MCJB20	Soil
Tl	MCJB44	Aqueous
cyanide (CN)	MCJB44, MCJB46	Aqueous

The analytical spike recoveries were low (<85%) in several samples for the analytes listed below. The quantitation limits and the reported results for these analytes in the affected samples may be biased low and have been qualified "UL" and "L", respectively. Several qualifiers have been superseded by "R" or "B" qualifiers, previously mentioned.

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<u>Analytes</u>	<u>SDG(s)</u>	<u>Matrix</u>
As	MCJB20 MCJB46	Soil Aqueous
Pb	MCJB46	Aqueous
Sa	MCJB18, MCJB20 MCJB46	Soil Aqueous
Tl	MCJB20 MCJB44, MCJB46	Soil Aqueous

NOTES

The field duplicate results were within the laboratory duplicate control limits (20% RPD or \pm CRDL) for the aqueous sample pair MCJB48 and MCJB56 in SDG MCJB46. The results for the soil field duplicate pairs were within the technical control limits (35% RPD, \pm 2xCRDL) for sample pair MCJB31 and MCJB43, except for the Cu (43.3%) analyte and for sample pair MCJB22 and MCJB30; except for the Al (58%), Ca (72.3%), Fe (42.6%) and Ag (40.5%) analytes. Because there are no criteria established in Region III for field duplicate precision, no data were qualified.

The laboratory did not apply the "W" flag to sample MCJB48 for the As analyte (84.5%) on the Form I denoting that the analytical spike recovery was outside of the 85%-115% control limits. The "W" on the Form I was added during validation.

Soil samples quantitation limits and reported results are calculated on the basis of dilution factors obtained from the raw data value (in ug/L), the gram weight of sample used, the volume of the digestate, and the % solids according to the following equation.

$$\text{mg/Kg} = \frac{(\text{raw value, ug/L}) (\text{digestate volume, L})}{(\text{weight, g}) (\% \text{ solids}/100)}$$

To obtain quantitation limits, insert the IDL (Form X) for the raw value; refer to Form XIII to obtain each sample preparation weight and volume used. The quantitation limit thus obtained is specific for each sample and preparation method.

The laboratory marked results for the Ni analyte in SDG MCJB18 and for the Al and Ca analytes in SDG MCJB20 on Form Is with an * denoting soil laboratory duplicate results outside of the contractual control limits of 20% RPD or \pm CRDL. However, the technical control limits of 35% RPD or \pm 2xCRDL were not exceeded for these analytes. The affected data were not qualified during validation.

Dilutions were made during the analysis of Se which affected the quantitation limits in some samples. Table 5 is a summary of those samples, the dilutions used, and the resultant quantitation limits.

The analytical spike recoveries were high for the Se and Tl analytes in all the SDGs for several samples. These analytes were not detected above their IDLs. High recoveries do not affect quantitation limits; therefore, no data were qualified based on these high spike recoveries.

The data were reviewed in accordance with the National Functional Guidelines for Evaluating Inorganic Analyses, with modifications for use within Region III.

INFORMATION REGARDING REPORT CONTENT

Table 1A is a summary of qualifiers added to the laboratory's results during evaluation.

ATTACHMENTS

TABLE 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION
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TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

<u>ANALYTE</u>	<u>SDG</u>	<u>SAMPLES AFFECTED</u>	<u>POSITIVE</u> <u>VALUES</u>	<u>NON-</u> <u>DETECTED</u> <u>VALUES</u>	<u>BIAS</u>	<u>COMMENTS*</u>
A1	MCJB18	MCJB25, MCJB39	B			HIGH A(1720 µg/L)
	MCJB20	MCJB27, MCJB28	B			HIGH A(1720 µg/L)
	MCJB44	All samples	B			HIGH A(1720 µg/L)
	MCJB46	All samples except MCJB50, MCJB57	B			HIGH A(1720 µg/L)
Sb	MCJB18	All samples	L	UL	LOW	B(88.4%) C(56.9%)
	MCJB20	All samples	L	UL	LOW	C(41.2%)
	MCJB46	All samples		UL	LOW	B(88.9)
As	MCJB18	MCJB19, MCJB25, MCJB40, MCJB60, MCJB62	J			D(112%, 73.0%)
		MCJB18, MCJB37, MCJB38, MCJB39, MCJB41, MCJB42, MCJB61	L		LOW	C(73.0%)
	MCJB20	MCJB31, MCJB43	L		LOW	C(69.3%) E(80.5%, 80.0%)
		MCJB20, MCJB21, MCJB23, MCJB24, MCJB26, MCJB27, MCJB28	J			D(113%, 69.3%)
		MCJB22, MCJB29, MCJB30, MCJB32- MCJB36	L		LOW	C(69.3%)
	MCJB44	MCJB44	K			HIGH F(112%)

* See explanation of Comments on Table 1B.

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

<u>ANALYTE</u>	<u>SDG</u>	<u>SAMPLES AFFECTED</u>	<u>POSITIVE</u>	<u>NON-</u>	<u>BIAS</u>	<u>COMMENTS*</u>
			<u>VALUES</u>	<u>DETECTED</u>		
As	MCJB46	MCJB46, MCJB47, MCJB49, MCJB50, MCJB53, MCJB55		R	EXTREMELY LOW	G(-2.5%)
		MCJB48, MCJB52, MCJB54, MCJB56, MCJB57		R	EXTREMELY LOW	G(-2.5%) E(75.5%-84.5%)
Be	MCJB18	All samples except MCJB42	B		HIGH	H(1.2 µg/L)
	MCJB20	All samples except MCJB29	B		HIGH	H(0.8 µg/L)
Cd	MCJB18	MCJB18, MCJB37, MCJB38, MCJB60, MCJB62	K		HIGH	F(111%)
	MCJB20	MCJB29, MCJB30	K		HIGH	F(116%)
	MCJB44	MCJB44, MCJB45	B		HIGH	H(2.6 µg/L) F(115%)
Ca	MCJB18	MCJB40	B		HIGH	A(1320 µg/L)
	MCJB20	MCJB34	B		HIGH	A(1320 µg/L)
Cr	MCJB20	All samples	J			K(8.0 mg/Kg)
	MCJB44	MCJB45, MCJB51, MCJB59		UL	LOW	B(78.5%, 84.4%)
	MCJB46	All samples		UL	LOW	B(82.6%, 82.5%)
Cu	MCJB44	MCJB45, MCJB51	B		HIGH	H(6.4 µg/L)
	MCJB46	All samples	L	UL	LOW	B(84.8%)
Fe	MCJB44	MCJB45, MCJB59	B		HIGH	A(207 µg/L) I(11.3%)
		MCJB44, MCJB51	J			I(11.3%)

See explanation of Comments on Table 1B.

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TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

ANALYTE	SDG	SAMPLES AFFECTED	NON-		BIAS	COMMENTS*
			POSITIVE VALUES	DETECTED VALUES		
Fe	MCJB46	MCJB46, MCJB48, MCJB50, MCJB52, MCJB55, MCJB56	B		HIGH	A(207 µg/L)
Pb	MCJB20	MCJB36	J			J(0.993)
	MCJB44	MCJB45, MCJB51, MCJB59	B		HIGH	A(6.6 µg/L)
	MCJB46	All samples except MCJB47, MCJB50, MCJB52, MCJB56, MCJB57	B		HIGH	A(6.6 µg/L) K(4.3 µg/L)
		MCJB47	B		HIGH	A(6.6 µg/L) F(113%) K(4.3 µg/L)
		MCJB50, MCJB52,	B		HIGH	A(6.6 µg/L) F(113%) K(4.3 µg/L) E(82.0%-83.6%)
		MCJB56	B		HIGH	A(6.6 µg/L) K(4.3 µg/L) E(84.2%)
		MCJB57	B		HIGH	H(2.1 µg/L) K(4.3 µg/L) E(78.7%)
Mn	MCJB20	All samples	J			K(66.4%)
	MCJB44	MCJB45, MCJB51, MCJB59	B		HIGH	A(45.4 µg/L)
	MCJB46	MCJB46, MCJB47, MCJB50, MCJB52	B		HIGH	A(45.4 µg/L)
Ni	MCJB44	All samples	L	UL	LOW	B(86.0%)

* See explanation of Comments on Table 1B.

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TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

<u>ANALYTE</u>	<u>SDG</u>	<u>SAMPLES AFFECTED</u>	<u>POSITIVE</u> <u>VALUES</u>	<u>NON-</u> <u>DETECTED</u> <u>VALUES</u>	<u>BIAS</u>	<u>COMMENTS*</u>
Se	MCJB18	MCJB25, MCJB37	J		HIGH	J(0.970, 0.968) F(156%)
		MCJB18, MCJB39, MCJB40, MCJB41		UL	LOW	E(49.0%-83.9%)
	MCJB20	All samples except MCJB22, MCJB29, MCJB30, MCJB35, MCJB36	L	UL	LOW	C(55.0%)
		MCJB29, MCJB30, MCJB35, MCJB36		UL	LOW	C(55.0%) E(69.5%-82.8%)
		MCJB22	J			D(147%, 55.0%, 76.5%)
	MCJB46	All samples except MCJB46, MCJB53, MCJB54, MCJB55		R	EXTREMELY LOW	G(6.8%)
		MCJB46, MCJB53, MCJB54, MCJB55	L	R	EXTREMELY LOW	G(6.8%) E(77.4%-80.6%)
Ag	MCJB20	MCJB22, MCJB31, MCJB43	K		HIGH	F(120%, 123%)
Na	MCJB18	All samples except MCJB41	B		HIGH	A(380 µg/L)
	MCJB20	All samples	B		HIGH	A(380 µg/L)
Tl	MCJB20	All samples except MCJB32, MCJB33		UL	LOW	B(80.2%)
		MCJB32, MCJB33		UL	LOW	B(80.2%) E(73.3%-79.0%)

* See explanation of Comments on Table 1B.

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TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY
AFTER DATA VALIDATION

<u>ANALYTE</u>	<u>SDG</u>	<u>SAMPLES AFFECTED</u>	<u>POSITIVE</u> <u>VALUES</u>	<u>NON-</u> <u>DETECTED</u> <u>VALUES</u>	<u>BIAS</u>	<u>COMMENTS*</u>
Tl	MCJB44	MCJB44, MCJB45, MCJB51, MCJB53		UL	LOW	C(71.5%) E(55.9%-78.4%)
	MCJB46	All samples except MCJB57		UL	LOW	B(88.0%) E(56.3%-80.4%)
		MCJB57		UL	LOW	E(80.4%)
Zn	MCJB44	All samples except MCJB44	B		HIGH	A(13.1 µg/L)
	MCJB46	All samples except MCJB55, MCJB57	B		HIGH	A(13.1 µg/L)
CN	MCJB44	All samples	L	UL	LOW	C(72.2%)
	MCJB46	All samples	L	UL	LOW	C(50.0%)

* See explanation of Comments on Table 1B.

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TABLE 1B

CODES USED IN COMMENTS COLUMN

- A = The field blank (FB) had a result >IDL (the result is in parentheses) and the reported results were <5x the blank concentration. The reported results may be biased high.
- B = The Contract Required Detection Limit (CRDL) standard recovery was low (% recovery is in parentheses). The quantitation limits and the reported results >IDL but <2xCDRL may be biased low.
- C = The matrix spike recovery was low (% recovery is in parentheses). Quantitation limits and reported results may be biased low.
- D = The CRDL recovery was high and the matrix spike and/or analytical spike recoveries were low (% recoveries are in parentheses) resulting in an opposing bias effect. The reported results may be estimated.
- E = The analytical spike recoveries were low (% recovery or range of recoveries are in parentheses). Quantitation limits and reported results may be biased low.
- F = The CRDL standard recovery was high (% recovery is in parentheses). The reported results >IDL but <2xCDRL may be biased high.
- G = The CRDL standard recovery was below 50% (% recovery is in parentheses). The reported result may be biased low and quantitation limits may be unusable.
- H = The CCB had a result >IDL (the result is in parentheses) and the reported results were <5x the blank concentration. The reported results may be biased high.
- I = The ICP serial dilution result was outside of the control limit (the result is in parentheses). The reported results may be estimated.

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CODES USED IN COMMENTS COLUMN

- J - The correlation coefficient for the MSA was less than 0.995 (the correlation coefficient is in parentheses). The reported result may be estimated.
- K - The laboratory duplicate result was outside of the control limit (actual RPD or Difference is in parentheses). Reported results may be estimated.

TABLE 2

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of analytes):

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte Present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

[] = Analyte present. As values approach the IDL the quantitation may not be accurate.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

DATA SUMMARY FORM: INORGANICS

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TABLE - 3

SOIL SAMPLES

(mg/Kg)

Site Name: 60TH STREET DUMP

Case #: 20101 Sampling Date(s): 6/3/93

SDG #: MCJ818

+ Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

Sample No.	MCJ818	MCJ819	MCJ825	MCJ837	MCJ838	MCJ839	MCJ840	MCJ842	MCJ846
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Solids	40.8	44.7	40.1	40.9	40.4	41.6	44.8	79.3	83.6
Location	SEP-1	SEP-2	SEP-8	SOIL-7	SOIL-8	SOIL-9	SOIL-10	SOIL-11	SOIL-12
CDL ANALYTE									
40. Aluminum	9810	4600	1020	9460	8520	1670	8100	14500	12400
12. Antimony									
2. Arsenic	10.2	12.5	11.3	5.8	6.5	12.6	3.2	33.8	9.2
40. Barium	355	77.9	110.8	249	249	73.2	140.5	545	189
1. Beryllium	10.91	10.31	10.43	10.49	10.44	10.23	10.47	10.55	1.7
1. Cadmium	3.4			1.8	2.0	10.1		6.3	3.2
1000. Calcium	14800	7230	4018	8500	5990	2570	11423	9470	44700
2. Chromium	191	56.8	9.2	196	199	31.5	29.2	57.5	48.7
10. Cobalt	111.4	66.5	16.3	17.4	16.5	13.9	18.7	33.4	15.1
5. Copper	389	42.7	6.7	209	207	934	18.3	647	110
20. Iron	27100	11400	7390	20100	19900	4610	25800	73000	23600
0.6. Lead	591	92.2	43.4	109	107	2990	9.9	1330	204
1000. Magnesium	6720	3830	1940	2130	1350	1049	2220	1130	33100
3. Manganese	367	215	114	253	226	114	143	501	750
0.1. Mercury	0.55	0.21		1.2	0.46	0.73		0.45	0.23
8. Nickel	107	25.4	15.7	40.8	34.9	27.5	14.9	224	31.4
1000. Potassium	14101	11000	176.7	1673	1574	1143	1704	1433	1688
1. Selenium			10.93	2.3					
2. Silver	13.21	11.2	11.4	7.4	7.9	3.3	11.1	17.5	12.2
1000. Sodium	1404	1104	171.4	1137	107.8	173.5	107.2	142	1330
2. Thallium								10.34	
10. Vanadium	63.4	23.3	110.4	36.2	31.2	110.3	36.4	55.9	32.7
4. Zinc	647	148	37.3	519	475	196	45.4	1520	344
1. Cyanide					2.0			0.75	

CDL = Contract Required Detection Limit

*Action Level Estimate

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: ORGANICS

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TABLE - 3

SOIL SAMPLES

(mg/kg)

Site Name: 60TH STREET DUMP

Sample No: 20101 Sampling Date(s): 6/3/93

Lab: MCJ618

Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

DL ANALYTE	Sample No.	MCJ61	MCJ62	Dilution Factor	% Solids	Location
40 Aluminum	5550	10500	1.0	76.9	43.4	SOIL-15
12 Antimony	10.8	10.8	1.0	76.9	43.4	SOIL-16
2 Arsenic	10.8	10.8	1.0	76.9	43.4	SOIL-15
40 Barium	708	140	1.0	76.9	43.4	SOIL-16
1 Beryllium	10.497	10.497	1.0	76.9	43.4	SOIL-15
1 Cadmium	10.8	10.8	1.0	76.9	43.4	SOIL-16
100 Calcium	3550	13100	1.0	76.9	43.4	SOIL-15
2 Chromium	417	50.1	1.0	76.9	43.4	SOIL-16
10 Cobalt	16.81	110.81	1.0	76.9	43.4	SOIL-15
5 Copper	770	84.5	1.0	76.9	43.4	SOIL-16
20 Iron	21500	18300	1.0	76.9	43.4	SOIL-15
1.6 Lead	723	236	1.0	76.9	43.4	SOIL-16
100 Magnesium	1915	5220	1.0	76.9	43.4	SOIL-15
3 Manganese	81.2	374	1.0	76.9	43.4	SOIL-16
1.1 Mercury	16.6	8.73	1.0	76.9	43.4	SOIL-15
8 Nickel	25.1	41.6	1.0	76.9	43.4	SOIL-16
100 Potassium	1370	11900	1.0	76.9	43.4	SOIL-15
1 Selenium	47.3	12.41	1.0	76.9	43.4	SOIL-16
2 Silver	176.97	176.97	1.0	76.9	43.4	SOIL-15
100 Sodium	176.97	176.97	1.0	76.9	43.4	SOIL-16
2 Thallium	29.7	39.5	1.0	76.9	43.4	SOIL-15
10 Vanadium	650	360	1.0	76.9	43.4	SOIL-16
4 Zinc	1.2	1.2	1.0	76.9	43.4	SOIL-15
1 Cyanide	1.2	1.2	1.0	76.9	43.4	SOIL-16

DL = Contract Required Detection Limit

Action Level Exceeds

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: INORGANICS

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TABLE - 3

SOIL SAMPLES

(mg/Kg)

Site Name: 60TH STREET DUMP

Case #: 20101 Sampling Date(s): 4/2/93

SOG #: MCJ020

* Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

Sample No.	MCJ020	MCJ021	MCJ022	MCJ023	MCJ024	MCJ026	MCJ027	MCJ028	MCJ029	MCJ030
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Solids	71.6	77.6	50.2	68.2	78.2	70.6	79.2	81.8	79.4	71.8
Location	SED-3	SED-4	SED-5	SED-6	SED-7	SED-9	SED-10	SED-11	SED-12	SED-13
ANALYTE										
ALUMINUM	2550	3180	17500	6990	3190	3630	1010	1280	11100	9600
ANTIMONY										
ARSENIC	12.61	12.11	9.2	3.3	12.21	11.71	11.51	10.99	11.91	5.3
BARIUM	134.11	136.51	130	73.9	125.81	147.01	117.51	115.51	92.7	101
BERYLLIUM	10.261	10.471	10.811	10.631	10.151	10.471	10.321	10.401	1.9	10.591
CADMIUM									10.411	10.701
CALCIUM	7510	20800	4420	9910	6370	6540	2670	2920	70600	9430
CHROMIUM	11.5	19.0	63.4	35.4	15.8	16.4	7.0	24.0	37.4	73.6
COBALT	16.11	16.61	117.71	111.11	17.71	16.41	11.81	12.41	17.81	113.71
COPPER	20.4	8.8	73.8	42.2	15.8	15.5	8.1	9.3	22.5	65.4
IRON	10800	11200	32200	17100	10700	9010	4290	4710	6520	20900
LEAD	25.9	30.0	233	121	37.1	55.0	13.6	30.1	55.2	179
MAGNESIUM	3200	8070	2420	5720	3350	3000	11030	1340	22600	5070
MANGANESE	167	1200	599	331	104	126	62.4	140	1450	511
MERCURY			0.49	0.28					10.061	0.46
NICKEL	18.61	18.31	52.4	22.4	18.01	19.61	11.41	15.01	18.2	45.2
POTASSIUM	1221	12721	111401	112001	1301	1310	12501	13491	14511	113801
SALICILIC										
SILVER										
SODIUM	11291	11991	12001	11341	11021	196.31	170.01	160.91	13761	12061
THALLIUM										
VANADIUM	17.5	15.8	57.7	33.0	19.1	13.6	16.51	15.91	19.71	30.3
ZINC	121	60.9	290	230	60.4	77.3	31.6	34.6	250	306
CYANIDE	2.9									
Contract Required Detection Limit										
Action Level Estimate										

Contract Required Detection Limit

Action Level Estimate

SEE NARRATIVE FOR CODE DEFINITIONS

revised 1/93

AR000124

DATA SUMMARY FORM: INORGANICS

Page 4 of 7

TABLE - 3

SOIL SAMPLES

(mg/kg)

Site Name: 60TH STREET DUMP

Date: 20101 Sampling Date(s): 6/2/93

ID: MCJ820

* Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

Sample No.	MCJ831	MCJ832	MCJ833	MCJ834	MCJ835	MCJ836	MCJ837
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Solids	81.4	87.6	79.3	92.5	87.9	98.1	82.8
Location	SOIL-1	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-6	SOIL-13
ANALYTE	DUPLICATE OF MCJ831						DUPLICATE OF MCJ831
40.1 Aluminum	119000	8260	14300	3610	6000	6470	118000
12.1 Antimony	15.3		UA	UA	UA	UA	UA
2.1 Arsenic	(6.8)	56.2	1	(11.3)	1	3.9	(14.3)
40.1 Barium	217	369	2250	(24.1)	42.1	74.1	202
1.1 Beryllium	(0.84)	(0.43)	0	(0.20)	0	(0.43)	0
1.1 Cadmium	10.3		181				9.6
00.1 Calcium	11400	10900	49700	(840)	0	7520	11800
2.1 Chromium	366	161	138	34.4	29.3	22.5	299
10.1 Cobalt	16.3	13.9	35.7	(3.5)	(4.5)	(5.9)	18.0
5.1 Copper	3740	5270	1240	13.1	22.1	25.0	2150
20.1 Iron	36000	91800	46200	5950	13100	12600	43700
1.6 Lead	558	491	2600	57.0	73.0	201	552
00.1 Magnesium	4340	2370	4970	(701)	1070	2250	4040
3.1 Manganese	920	1190	2060	56.7	213	240	903
1.1 Mercury	1.0	0.42	0.50	(0.05)	0.20	0.20	2.5
0.1 Nickel	139	121	112	12.1	(5.5)	(6.1)	113
100.1 Potassium	(744)	(507)	2200	(651)	(410)	(424)	(725)
1.1 Selenium	UA	2.9	10.4	UA	UA	UA	UA
2.1 Silver	4.3	6.1	12.6	UA	UA	UA	4.4
100.1 Sodium	(315)	(147)	0	(62.4)	0	(91.3)	(264)
2.1 Thallium	UA	UA	UA	UA	UA	UA	UA
10.1 Vanadium	92.0	30.5	90.4	12.4	40.2	31.9	82.3
4.1 Zinc	1340	444	4560	61.9	73.4	77.0	1300
1.1 Cyanide							

UA = Contact Required Detection Limit

* Action Level Exceeds

SEE NARRATIVE FOR CODE DEFINITIONS

revised 10/12/90

AR0000125

Site Name: 601N STREET NW#2
DATE 137815 M109

Case #: 20101 Sampling Date(s): 6/3/93

SDG #: NC1846

† Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

Sample No.	MC1844	MC1845	MC1851	MC1859
Dilution Factor	1.0	1.0	1.0	1.0
Location	SU-1	SU-2	SU-3	CU-1
ANALYTE				
200 Aluminum	2510	B (18.7)	B (194.2)	B (35.9)
60 Antimony				
10 *Arsenic	16.4	K		
200 Barium	499	(149.3)	(448.9)	(449.4)
5 Beryllium				
5 *Cadmium	5.2	B (12.7)	B	
5000 Calcium	71400	29100	31000	10000
10 *Chromium	38.6		NA	NA
50 Cobalt	(4.3)			
25 Copper	59.5	(18.4)	B (18.1)	B
100 Iron	12600	A 838	B 1100	A (85.7)
5 *Lead	157	7.2	B 5.5	B 5.0
5000 Magnesium	14000	7610	4950	(2030)
35 Manganese	476	225	B 73.7	B (19.8)
0.2 Mercury				
40 *Nickel	119.2	L	NA	NA
5000 Potassium	11200	(4170)	(3300)	(2910)
5 Selenium				
10 Silver				
5000 Sodium	45000	24800	25800	118000
30 Thallium		NA	NA	NA
50 Vanadium	(16.4)			
20 Zinc	245	37.6	B 52.2	B (113.4)
10 *Cyanide		NA 45.2	L	NA

CAOL - Contract Required Detection Limit

•Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 1299

AR000126

QC #: MC3446

* Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

[illegible]

CPRODL = Contract Required Detection Limit

“Action Level Exists”

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

AR000127

(wq/t)

978734 : 8 505

* Due to dilution, sample quantitation limit is affected.
See dilution table for specifics.

[illegible]

CADL - Contract Required Detection Limit

"Action Level Exposed"

SEE MAGNATIVE FOR CODE DEFINITIONS

AR000128

06/10 14:21

ORIGINAL

TABLE 4

SAMPLES EXCEEDING THE CHEMICAL HEALTH ADVISORY LEVELS

<u>Analyte</u>	<u>SDG</u>	<u>Samples</u>	<u>Units mg/Kg</u>		
			<u>Advisory Limit</u>	<u>Reported Result</u>	
Pb	MCJB18	MCJB18	500	591	
		MCJB39	500	2990	
		MCJB41	500	1530	
		MCJB61	500	723	
	MCJB20	MCJB31	500	558	
		MCJB33	500	2680	
		MCJB43	500	552	
	<u>Units ug/L</u>				
	MCJB44	MCJB44	20	157	

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AR000129

TABLE 5
SAMPLES REQUIRING DILUTION AND
RESULTANT ELEVATED QUANTITATION LIMITS

<u>Analyte</u>	<u>SDG</u>	<u>Samples</u>	<u>Units mg/Kg</u>		<u>Resultant Quantitation Limit</u>
			<u>Original Quantitation Limit</u>	<u>Dilution Factor</u>	
Se	MCJB13	MCJB38	0.82	5	4.1
		MCJB61	0.86	5	4.0
	MCJB20	MCJB31	0.81	5	4.0
			0.78	5	3.9
		MCJB43			

ORIGINAL
(2nd)

ATTACHMENT II

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AR000131

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION III
CENTRAL REGIONAL LABORATORY
201 DEFENSE HIGHWAY
SUITE 200
ANNAPOLIS, MARYLAND 21401

QUALITY
ASSURANCE
BRANCH

ORIGINAL
1747

DATE : October 4, 1993

SUBJECT: Region III Data QA Review

FROM : Cynthia E. Caporale *C. Caporale*
Region III ESAT RPO (3ES30)

TO : Ginny Sells
State of Maryland

Attached is the organic data validation report for the 68th Street Dump Site (Case 20101) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me at (410) 573-6832.

Attachment

cc: Regional CLP TPO: Stevie Wilding Region: 3 Lab Code: ENVSYS

TID File: 03930418 Task 3378

CERCLA

OCT 6 1993

Projects Division

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AR000132



Environmental Services Assistance Teams
Region 3
1419 Forest Crve. Suite 104
Annapolis, Maryland 21403

Phone: (410) 258-7705
Fax: (410) 258-8472

DATE: September 24, 1993

SUBJECT: Organic Data Validation For Case #20101
Site: 68th Street Dump

FROM: M. Hamid/F. Petraitis *M.H. F.P.* Mahboobeh Mecanic *71*
Organic Data Reviewers Senior Oversight Chemist

TO: Cynthia E. Caporale
ESAT Regional Project Officer

THROUGH: Dale S. Boshart *DSB*
ESAT Team Manager

OVERVIEW

Case 20101, consisted of three (3) sample delivery groups (SDGs). The case consisted of sixteen (16) aqueous and twenty-nine (29) soil samples submitted to ENVSYS for volatile, semivolatile and pesticide/PCS analyses. The case included one (1) trip blank which was analyzed for volatile only, one (1) field blank, one (1) aqueous and two (2) soil field duplicate pairs. The samples were analyzed as a Contract Laboratory Program (CLP) Routine Analytical Service (RAS).

SUMMARY

All samples were successfully analyzed for all target compounds. The analysis was performed according to the 3/90 Statement of Work (SOW) for Low/Medium concentration organics. All instrument and method sensitivities were according to the Contract Laboratory Program (CLP) Routine Analytical Service (RAS) protocol.

MINOR PROBLEMS

- o Several compounds failed precision criteria (%RSD and/or %D) in the volatile and semivolatile initial and/or continuing calibrations. The positive results were qualified "J", except when superseded by the "B" qualifier and the quantitation limits were qualified "UJ" when the %RSD or the %D were grossly exceeded (>50%) for these compounds in the affected samples. See Table I in Appendix F.
- o The semivolatile extraction of soil samples CKW20, CKW21, CKW22 and CKW43 was performed at least twenty (20) days after the date of sample collection. Although no technical extraction holding time has been established for soil samples,

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the technical holding time of seven (7) days for aqueous samples has been exceeded by at least thirteen (13) days. The quantitation limits for these samples were qualified "UJ" and positive results were qualified "J", except when superseded by the "B" qualifier. See Form Is in Appendix C and traffic reports in Appendix F.

- o The pesticide/PCB extractions of the soil samples CKW18, CKW19, CKW41, CKW42, CKW60, CKW61 and CKW62 were performed eleven (11) to twelve (12) days after the date of sample collection. Although no technical extraction holding time has been established for soil samples, the technical holding time of seven (7) days for aqueous samples has been exceeded by four (4) to five (5) days. The quantitation limits for these samples were qualified "UJ" and positive results were qualified "J". See Form Is in Appendix C and traffic reports in Appendix F.
- o In the initial volatile analysis of sample CKW37, acetone exceeded the linear calibration range. The diluted analysis of this sample was performed twenty-six (26) days after the date of sample collection. Although no analyses holding time has been established for volatiles in soil samples, the technical holding time of fourteen (14) days for aqueous samples has been exceeded by twelve (12) days. The result for acetone in this sample was reported from the diluted analysis. The "L" qualifier was superseded by the "B" qualifier on the data summary forms (DSFs). See Form Is in Appendix C and traffic reports in Appendix F.
- o The volatile analyses of several samples had the recoveries of the System Monitoring Compounds (SMC) and/or Internal Standard (IS) areas outside the QC limits as summarized in the following table:

Sample	SMC	IS
CKW35	---	IS3
CKW35RE	SMC3	IS3
CKW41	SMC3	IS3
CKW41RE	SMC1, SMC3	IS1, IS2, IS3
CKW18	SMC3	IS3
CKW18RE	SMC3	IS3
CKW19	SMC3	IS3
CKW19RE	SMC3	IS2, IS3
CKW36	SMC3	---
CKW36MS	SMC3	IS2, IS3
CKW36MSD	SMC3	IS1, IS2, IS3
CKW42	SMC3	IS1, IS2, IS3
CKW42RE	----	IS3
CKW60	SMC3	IS3
CKW60RE	----	IS3

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<u>Sample</u>	<u>SMC</u>	<u>IS</u>
CKW61	SMC3	IS2, IS3
CKW61RE	----	IS1, IS2, IS3
CKW62	SMC3	IS1, IS2, IS3
CKW62RE	SMC3	IS2, IS3
CKW31	----	IS3
CKW31RE	----	IS3
CKW33	----	IS2, IS3
CKW33RE	----	IS2, IS3

Results from the initial analyses of all samples were reported on the DSFs. In samples CKW41, CKW41RE, CKW18, CKW19, CKW36, CKW42, CKW60, CKW61 and CKW62, the quantitation limits were qualified "UJ" and positive results were qualified "J", except when superseded by the "B" qualifier. In samples CKW31, CKW33 and CKW35, the quantitation limits and reported results for compounds using IS3 (CKW31) and (CKW35) or IS2 and IS3 (CKW33) were qualified "UJ" and "J", respectively. See Form VIII VOA in Appendix F.

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5
 SMC3 = 1,2-dichloroethane-d4

- o The semivolatile analyses of several samples had the area of the internal standard IS5 and/or IS6 outside the QC limits as summarized in the following table:

<u>Sample</u>	<u>IS</u>
CKW36	IS5
CKW36RE	IS5
CKW37	IS6
CKW37RE	IS6
CKW42	IS6
CKW41	IS5, IS6
CKW41DL	IS5, IS6

IS5 = Chrysene-d12
 IS6 = Perylene-d12

Results from the initial analyses were reported on the DSFs. The quantitation limits and positive results for compounds using the above internal standards were qualified "UJ" and "J" respectively, in the affected samples. See Form VIII SV in Appendix F.

- o In the pesticide/PCB analyses of the aqueous samples CKW44 to CKW49 and CKW51 to CKW53 the recoveries of the surrogate dachlrobiphenyl (DCB) were below the QC limits on both columns. The quantitation limits in the above samples were qualified "UJ". See Form II pest-1 in Appendix F.
- o In the pesticide/PCB analyses, sample CKW50 had three surrogate recoveries below the QC limits. The quantitation limits for this sample were qualified "UL". See Form II pest-1 in Appendix F.
- o In the pesticide/PCB analyses, sample CKW57 had the recovery of surrogate tetrachloro-m-xylene (TCX) below the QC limit on both columns. The quantitation limits were qualified "UJ" and positive results were qualified "J". See Form II pest-1 in Appendix F.
- o In the pesticide/PCB analyses, samples CKW39 and CKW43 had all surrogate recoveries below the QC limits. The quantitation limits were qualified "UL" and positive results were qualified "L", except when superseded by the "J" qualifier. See Form II pest-1 in Appendix F.
- o In the pesticide/PCB analyses of sample CKW41 surrogates TCX and DCB yielded high recoveries on different columns. Positive results were qualified "J". See Form II pest-1 in Appendix F.
- o In the pesticide/PCB analyses of sample CKW62 surrogate TCX yielded high recovery on one (1) column and low recovery on the other column. Quantitation limits were qualified "UJ" and positive results were qualified "J". See Form II pest-1 in Appendix F.
- o The "P" qualifier used in the pesticide/PCB Form Is denotes a percent difference (%D) greater than (25%) between the reported results on the two (2) columns used for the analysis. The positive results were qualified "J" in the DSFs. See Form Is pest in Appendix F.

NOTES

- o The maximum concentrations of all compounds found in the analyses of the field and laboratory method blanks are listed below. Samples with concentrations of common laboratory contaminants less than ten (10) times the blank concentration or with concentrations of other contaminants less than five (5) the blank concentrations, have been qualified "B" on the data summary forms.

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<u>Compound</u>	<u>Concentration</u>
Methylene chloride*	4 J ug/l
Acetone*	23 ug/kg
2-Butanone*	16 J ug/kg
2,4,6-Trichlorophenol	4 J ug/l
Di-n-butylphthalate*	900 J ug/kg

* Common laboratory contaminants

- o In the volatile analyses, sample CKW44 was reanalyzed because BFB was slightly below the QC limits. The reanalyses had the recovery of surrogate 1,2-dichloroethane-d4 outside the QC limits. Results from the initial analysis were reported on the DSFs. No action was needed. See Form II VOA 1 in Appendix F.
- o In the volatile analyses of sample CKW47MSD surrogate 1,2-dichloroethane-d4 yielded high recovery outside the QC limits. No action was taken. See Form II VOA-1. in Appendix F.
- o The initial semivolatile analysis of sample CKW42, performed at a 10X dilution, had the area of IS3 outside the QC limits. Several target compounds were detected in this analysis. In the reanalysis of this sample, performed at a 50X dilution, all compounds were diluted out. Results from the initial analysis were reported. The quantitation limits and positive results quantitated using IS3 were qualified estimates as previously mentioned under minor problems. See Form II SV-2 in Appendix F.
- o The semivolatile extraction of the several soil samples were performed eight (8) days after the date of samples collection. Although no technical extraction holding time has been established for soil samples, the technical holding time of seven (7) days for aqueous samples has been exceeded by one (1) day. Since most of the semivolatile compounds are stable and persistent in the soil matrix, no action was taken. See Form IS in Appendix C and traffic reports in Appendix F.
- o In the pesticide/PCB analyses, surrogates TCX and DCB yielded recoveries outside the QC limits on one (1) or both columns for the method blanks PBLK60, PBLK62 and PBLK65. No action was taken. See Form II Pest 1 in Appendix F.
- o In the pesticide/PCB analyses, the initial calibrations dated 7-1-93 and the performance evaluation mixture (PEM) dated on 7-7-93 had several compounds outside the QC limits. No positive results were detected in the associated samples for the initial calibration and no samples were associated with

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the PEM sample. No action was taken. See Form VI pest-2 Form VIII pest in Appendix F.

- o In the semivolatile analyses, the internal standards IS5 and IS6 exhibited areas outside the QC limits in sample CKW36MSD and IS5 exhibited area outside the QC limits in sample CKW21MSD. No action was needed.
- o In the pesticide/PCB analyses, samples CKW57, CKW23, CKW29, CKW32, CKW33, CKW38, CKW41, CKW18, CKW42, CKW60 had one surrogate recovery outside the QC limits. No data were qualified. See Form II pest 2 in Appendix F.
- o Non-spiked compounds, other than blank contaminants, were detected in the semivolatile and pesticide/PCB analyses of samples CKW21, CKW36 and their MS/MSD analyses. The results and precision estimates are as follows:

Compound	Concentrations (ug/kg)			
	CKW21	MS	MSD	±RSD
Phenanthrene	180 J	530	330 J	50
Fluoranthene	410 J	1100	720	46
Benzo(a)anthracene	ND	310 J	220 J	33*
Chrysene	160 J	320 J	250 J	33
Bis(2-Ethylhexyl) phthalate	240 J	220 J	290 J	14
Benzo(b)fluoranthene	400 J	810	540	36
Benzo(a)pyrene	150 J	140 J	ND	7*
Benzo(g,h,i)perylene	140 J	ND	ND	IN
Alpha chlordane	6.6	10	11	25
Gamma chlordane	7.2	10 J	9.1 J	16
Compound	Concentrations (ug/kg)			
	CKW36	MS	MSD	±RSD
Benzo(b)fluoranthene	170 J	120 J	ND	34*

± RSD = Percent Relative Standard Deviation

* = Relative Percent Difference used instead of ±RSD

ND = Not detected

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- Three (3) field duplicate pairs were analyzed. The results and precision estimates for the soil duplicate pairs CKW22/CKW30 and CKW31/CKW43, excluding the blank contaminants, are listed in the following tables. No target compound were found in the aqueous field duplicate pair, samples CKW48 and CKW56.

Compound	Concentrations (ug/kg)		
	CKW22	CKW30	RPD
Toluene	7 J	10 J	35
4-Methylphenol	280 J	710	87
Phenanthrene	280 J	240 J	15
Fluoranthene	900 J	720	22
Pyrene	640 J	300 J	72
Benzo(a)anthracene	340 J	330 J	3
Chrysene	390 J	360 J	8
Bis(2-Ethylhexyl) phthalate	ND	220 J	ND
Benzo(b)fluoranthene	1000 J	770 J	26
Benzo(a)pyrene	410	ND	IN
Indeno(1,2,3-cd)-pyrene	320 J	ND	IN
Benzo(g,h,i)perylene	420 J	ND	IN
Alpha chlordanes	11	ND	IN
Gamma chlordanes	9.3	ND	IN

Compound	Concentrations (ug/kg)		
	CKW31	CKW43	RPD
Phenanthrene	150 J	ND	IN
Fluoranthene	350 J	270 J	26
Pyrene	170 J	160 J	6
Benzo(a)anthracene	250 J	170 J	38
Chrysene	200 J	140 J	35
Bis(2-Ethylhexyl) phthalate	310 J	360 J	15
Benzo(b)fluoranthene	630	520 J	19
Benzo(a)pyrene	ND	170 J	IN
Indeno(1,2,3-cd)-pyrene	ND	170	IN
Dibenz(a,h)anthracene	ND	120 J	IN
Benzo(g,h,i)perylene	ND	230 J	IN
Alpha chlordanes	39	2.8 L	173
Gamma chlordanes	24 J	1.5 J	176
Aroclor-1260	ND	23 J	IN

RPD = Relative percent difference

ND = Not detected

IN = Indeterminate

- o Due to the high concentrations of target or non-target compounds, the semivolatile initial analysis of sample CKW41 was performed at a 5X dilution. Similarly the pesticide/PCS initial analyses of samples CKW18, CKW19, CKW31, CKW32 CKW41, CKW42, CKW60 and CKW62 were performed at a 10X dilution, while sample CKW61 was analyzed at a 100X dilution. The CRQLs are elevated for these samples because of the dilutions. See DSFs in Appendix B and Form Is in Appendix C.
- o In the semivolatile analyses, samples CKW25, CKW27 and CKW41 were reanalyzed at 2X, 2X and 25X dilution respectively, because several target compounds exceeded the calibration range in the initial analyses. Results reported from the diluted analyses were marked with an asterisk on the DSFs. See Form I in Appendix C.
- o No target compounds, excluding the blank contaminants, were detected in the analyses of sample CKW47 and its MS/MSD analyses. The precision estimates can not be performed.
- o In the semivolatile and pesticide/PCS analyses of the soil samples, GPC cleanup was performed. The dilution factor of two (2) required by this procedure was accounted for in the analytical procedures used by the laboratory and is not reflected on the data summary forms.
- o The tentatively identified compounds (TICs) in Appendix D were reviewed and corrected during data validation. Compounds identified as blank contaminants were crossed off the TIC Form Is. The semivolatile target compound 1,2-Dichlorobenzene, was detected as a TIC in the volatile analyses of several samples and was crossed of the TIC Form Is.
- o The "X" qualifier was applied to the total xylenes result in sample CKW37 and to the results of several TICs in the semivolatile analyses. The laboratory did not explain why they used this qualifier. See Form Is in Appendix C and Form IS TIC in Appendix D.
- o In the semivolatile analyses, the laboratory method blanks yielded several hydrocarbons as TIC contaminants. See Form Is TIC in Appendix F.

All data for case 20101 were reviewed in accordance with the National Functional Guidelines for evaluating organic analyses with modification for use within region III. The text of the report addresses only those problems affecting usability.

ATTACHMENTS

- 1) Appendix A- Glossary of data qualifiers
- 2) Appendix B- Data summary. These include:
 - (a) All positive results for target compounds with qualifiers code when applicable
 - (b) All unusable detection limits (qualified "R")
- 3) Appendix C- Results as reported by the laboratory for all target compounds.
- 4) Appendix D- Reviewed and corrected tentatively identified compounds
- 5) Appendix E- Organic Regional Data assessment summary
- 6) Appendix F- Support documentation

DCN:MH308A21.STR

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AR000141

Appendix A
Glossary of Data Qualifiers.

GLOSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits.)

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

Appendix B

Data Summary forms

SOC# CKW46

93437 6308

[illegible]

•Action Level Exists

CFOI - Contract Required Quantitation Limit

revised 07/9

AR 0000165

Site Name: 64th STREET BRP

Case #:	20101	Sampling Date(s):	6/2/93	-	6/3/93
<p> </p>					

(1/65)
WATER SAMPLES

To calculate sample quantitation time
(CALC = Diffusion factor)

99033 8305

Sample No.	CM44	CM45	CM46	CM47	CM48	CM49	CM50	CM51	CM52
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-1	SU-2	SU-3	SU-4	SU-5	SU-6	SU-7	SU-8	SU-9
CAOL									
COMPOUND									
10	1,2-dichloropropane								
10	cis-1,3-dichloropropane								
10	Trichloroethene								
10	Bibromochloroethane								
10	1,1,2-Trichloroethane								
10	Benzene								
10	Trans-1,3-dichloropropane								
10	Bromform								
10	4-Methyl-2-pentene								
10	2-Heptene								
10	Tetrachloroethene								
10	1,1,2,2-Tetrachloroethane								
10	o-Tolune								
10	Chlorobenzene								
10	Ethylbenzene								
10	Styrene								
10	o-Tolol Xylene								

CR01 - Contract Required Quantitation Table

Action Level Exceeded

SEE NARRATIVE FOR CODE DEFINITION.
revised 07/11

2015

AR000146

WATER SAMPLES

Sampling Date(s): 6/2/93

To calculate sample quantitation time
(CQDL = dilution fac

Sample No.	CRV53	CRV54	CRV55	CRV56	CRV57	CRV58	CRV59
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-10	SU-11	SU-12	SU-13	BLK-1	BLK-1P1	CU-1
CRCL							
COMPOUND							
10	Chloromethane						
10	Bromomethane						
10	Vinyl Chloride						
10	Chloroethane						
10	Methylene Chloride	2					
10	Acetone	19	10	13	12	23	4
10	Carbon disulfide						
10	1,1-Dichloroethane						
10	1,1-Dichloroethane						
10	Total 1,2-Dichloroethane						
10	Chloroform						
10	1,2-Dichloroethane						
10	2-Butanone						
10	1,1,1-Trichloroethane						
10	Carbon tetrachloride						
10	Bromodichloromethane						

FCOI - Contract Required Quantitation Limit

Action Level Exits

SEE NARRATIVE FOR CODE DEFINITION
revised.

2000

WATER SAMPLES

To calculate sample quantitation in
(CRO) = Dilution factor

Sample No.	CU63	CU64	CU65	CU66	CU67	CU68	CU69
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Location	SW-10	SW-11	SW-12	SW-13	OLK-1	OLK-1P1	CU-1
COMPOUND				SAMPLE IS A FIELD DUP. OF CU66	SAMPLE IS A FIELD BLANK.	SAMPLE IS A FIELD BLANK.	
1,2-Dichloropropene							
Cis-1,3-Dichloropropene							
Trichloroethane							
Bibromochloroethane							
1,1,2-Trichloroethane							
Benzene							
Trans-1,3-Dichloropropene							
Bromoforn							
4-Methyl-2-pentene							
2-Hexene							
Tetrachloroethene							
1,1,2,2-Tetrachloroethane							
Toluene							
Chlorobenzene							
Ethylbenzene							
Styrene							
Total Nylones							

Contract Acquired Quantitation Limit

Original Project Number:

SEE NARRATIVE FOR CODE DEFINI
revised

1991

SOIL SAMPLES

20101 Sampling Date(s): 6-2-93

SDC70720

CR04 - Contract Sum/Reduction Limit

review

AR000149

1992

SOIL SAMPLES

To calculate sample quantitation limit

$$(C_{LOQ} \times \text{Dilution factor}) / ((100 - \text{Moisture}) / 100)$$

[illegible]**CAOL - Contract Required Quantitation Limit**

SEE NARRATIVE FOR CODE DEFINITION
revised 07

41994

AR000150

SAMPLES 1805

SOG#CKU20

SDG#CKU20

[illegible]

SEE NARRATIVE FOR CODE DEFINITION
revised 07/9

AR000151

02HXJ#705

To calculate sample quantitation limits:

$$(CRL \times \text{dilution factor}) / ((100 - \text{moisture}) / 100)$$

[illegible]

CR01 = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

AR000152

SOIL SAMPLES

(b)(7)(C)

Case #: 20101 Sampling Date(s): 6-2-93

SDC#CKV20

To calculate sample quantitation limit

$$(C_{PQL} \cdot \text{Dilution factor} / ((100 - \text{Zooisture}) / 10$$
[illegible]

1997 10/10/97 Puerto Polanco 156/1003 - 1003

♦ ♦ Results taken from reanalysis

revised by

AR000153

SOIL SAMPLES

(kg)

SDG PCW36

To calculate sample quantitation limits
 $(CROL) = \text{dilution factor} / ((100 - \% \text{moisture}) / 100)$

[illegible]

CKQL = Contract Required Quantitation Limit

* = Results taken from dilution

♦ ♦ ♦ Results reported from reanalyses

revised: 07/90

143

AR000155

Site Name: 68th Street Dump

SOIL SAMPLES
(ug/kg)

Case #: 20101 Sampling Date(s): 6-3-93
SOG/CKU36

To calculate sample quantitation limit
(CROQL = Dilution factor / ((100 - Moisture)/1

Sample No.	CKU18	CKU19	CKU25	CKU36	CKU37	CKU42	CKU40	CKU61	CKU62
Dilution factor	1.0	1.0	1.0	1.0	1.0/5.0	1.0	1.0	1.0	1.0
% Moisture	40	46	11	10	10	16	39	25	62
Location	SEB-1	SEB-2	SEB-8	SOIL-6	SOIL-7	SOIL-12	SOIL-14	SOIL-15	SOIL-16
COMPOUND									
1,2-Dichloropropene	101	101	101	101	101	101	101	101	101
Cis-1,3-Dichloropropene	101	101	101	101	101	101	101	101	101
Trichloroethene	101	101	101	101	101	101	101	101	101
Dibromochloromethane	101	101	101	101	101	101	101	101	101
1,1,2-Trichloroethane	101	101	101	101	101	101	101	101	101
Benzene	101	101	101	101	101	101	101	101	101
Trans-1,3-Dichloropropene	101	101	101	101	101	101	101	101	101
Bromoform	101	101	101	101	101	101	101	101	101
4-Methyl-2-pentanone	101	101	101	101	101	101	101	101	101
2-Hexanone	101	101	101	101	101	101	101	101	101
Tetrachloroethene	101	101	101	101	101	101	101	101	101
1,1,2,2-Tetrachloroethane	101	101	101	101	101	101	101	101	101
Toluene	7	5	101	101	101	101	101	101	101
Chlorobenzene	3	101	101	101	101	101	101	101	101
Ethylbenzene	101	101	101	101	101	101	101	101	101
Styrene	101	101	101	101	101	101	101	101	101
Total Nylens	101	101	101	101	101	101	101	101	101

CROQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINI
revised

AR000156

144

WATER SAMPLES

To calculate sample quantitation limit
(CNDL = dilution factor

[illegible]

***Action Level Exists**

SEE NARRATIVE FOR CODE DEFINITION
revised 07/

145

AR000157

Site Name: 601N STREET DUMP

WATER SAMPLES

(ug/L)

Case #: 20101 Sampling Date(s): 6/2/93 - 6/3/93

To calculate sample quantitation limits:
(CML * Dilution Factor)

SDG8 CML46

Sample No.	CML45	CML46	CML47	CML48	CML49	CML50	CML51	CML52
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Location	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
COMPOUND								
101 Hexachlorocyclopentadiene								
102 4-Chloro-3-methylphenol								
103 2-Methylnaphthalene								
104 Hexachlorocyclopentadiene								
105 2,4,6-Trichlorophenol								
501 2,4,5-Trichlorophenol								
106 2-Chloronaphthalene								
502 2-Nitroaniline								
107 Dimethylphthalate								
108 Acenaphthylene								
109 2,6-Dinitrotoluene								
503 3-Nitroaniline								
110 Acenaphthene								
504 2,4-Dinitrophenol								
505 4-Nitrophenol								
111 Dibenzofuran								
112 2,4-Dinitrotoluene								
113 Diethylphthalate								
114 4-Chlorophenyl-phenylether								
115 Fluorene								
506 4-Nitroaniline								
507 4,6-Dinitro-2-methylphenol								

CML = Contract Required Quantitation Limit

*Action Level Exceed

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

146

AR000158

20101581

Site Name: 681N JEE DUMP

WATER SAMPLES
(ug/L)

Case #: 20101 Sampling Date(s): 6/2/93 - 6/3/93

To calculate sample quantitation limits:
(CRDL = Dilution factor)

SDC# CRM46

Sample No.	CRM44	CRM45	CRM46	CRM47	CRM48	CRM49	CRM50	CRM51	CRM52
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-1	SU-2	SU-3	SU-4	SU-5	SU-6	SU-7	SU-8	SU-9
CRDL					DUP OF CRM56				
COMPOUND									
10_1									
10_2									
10_3									
10_4									
10_5									
10_6									
10_7									
10_8									
10_9									
10_10									
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SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

*Action Level Exists

101 = Contract Required Quantitation Limit

147

AR000159

Site Name: 601M STREET DUMP

Case #: 20101 Sampling Date(s): 6/2/93 - 6/3/93

SDGW CKU46

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CML = Dilution factor)

Sample No.	CKU53	CKU54	CKU55	CKU56	CKU57	CKU59
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-10	SU-11	SU-12	SU-13	BLK-1	CU-1
COMPOUND				DUP OF	FIELD	
CKU46				CKU46	BLANK	
10 Phenol						
10 bis(2-Chloroethyl) ether						
10 2-Chlorophenol						
10 1,3-Dichlorobenzene						
10 1,4-Dichlorobenzene						
10 1,2-Dichlorobenzene						
10 2-Methylphenol						
10 2,2'-oxybis(1-chloropropane)						
10 4-Methylphenol						
10 N-Nitroso-di-n-propylamine						
10 Hexachloroethane						
10 Nitrobenzene						
10 Isophorene						
10 2-Nitrophenol						
10 2,4-Dimethylphenol						
10 bis(2-Chloroethoxy)methane						
10 2,4-Dichlorophenol						
10 1,2,4-Trichlorobenzene						
10 Naphthalene						
10 4-Chloroaniline						

CML = Contract Required Quantitation Limit

*Action Level Exceeds

SEE NARRATIVE FOR CODE DEFINITION:

revised 8/7/91

148

AR000160

Site Name: 60TH STREET DUMP

WATER SAMPLES

(ug/L)

Case #: 20101 Sampling Date(s): 6/2/93 - 6/3/93

To calculate sample quantitation limits:
(CROL = Dilution factor)

SDG8 CCM46

Sample No.	CR053	CR054	CR055	CR056	CR057	CR059
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-10	SU-11	SU-12	SU-13	BLK-1	CU-1
CR01				DUP OF CR048	FIELD BLANK	
COMPOUND						
10	Hexachlorobutadiene					
10	4-Chloro-3-methylphenol					
10	2-Methylnaphthalene					
10	Hexachlorocyclopentadiene					
10	2,4,6-Trichlorophenol	2				
25	2,4,5-Trichlorophenol					
10	2-Chloronaphthalene					
25	2-Nitroaniline					
10	Dimethylphthalate					
10	Acenaphthylene					
10	2,6-Dinitrotoluene					
25	3-Nitroaniline					
10	Acenaphthene					
25	2,4-Dinitrophenol					
25	4-Nitrophenol					
10	Benzofuran					
10	2,4-Dinitrotoluene					
10	Diethylphthalate					
10	4-Chlorophenyl-phenylether					
10	Fluorene					
25	4-Nitroaniline					
25	4,6-Dinitro-2-methylphenol					

CROL = Contract Required Quantitation Limit

*Action Level Exceeds

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

149

AR000161

DATE 137015 N167 : 0000 01/13

Case #: 20101 Sampling Date(s): 6/2/93 - 6/3/93

97M170 #308

To calculate sample quantitation time
(CALC • Dilution Factor)

Sample No.	CX63	CX64	CX65	CX66	CX67	CX69
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-10	SU-11	SU-12	SU-13	BLE-1	GW-1
CBOL COMPOUND						
10 M-Nitrosodiphenylamine						
10 4-Bromophenyl-phenylether						
10 m-Meschlorobenzene						
25 p-Pentachlorophenol						
10 Phenanthrene						
10 Anthracene						
10 Carbazole						
10 Di-n-butylphthalate						
10 Fluoranthene						
10 Pyrene						
10 Butylbenzylphthalate						
10 3,3'-Dichlorobenzidine						
10 Benzo(a)anthracene						
10 Chrysene						
10 bis(2-Ethylhexyl)phthalate						
10 Di-n-octylphthalate						
10 Benzo(b)fluoranthene						
10 Benzo(k)fluoranthene						
10 Benzo(a)pyrene						
10 Indeno(1,2,3-cd)pyrene						
10 Dibenz(o,h)anthracene						
10 Benzo(g,h,i)perylene						

SEE NARRATIVE FOR CODE DEFINITION.
revised 07.

AR000162

Site Name: 68th Street Dump

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

SOIL SAMPLES
(ug/Kg)

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - Moisture)/100)

Sample No.	CKM20	CKM21	CKM22	CKM23	CKM24	CKM26	CKM27	CKM28	CKM29
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0/2.0	1.0	1.0
% Moisture	26	29	49	45	27	29	22	25	19
Location	SED-3	SED-4	SED-5	SED-6	SED-7	SED-9	SED-10	SED-11	SED-12
COMPOUND			FIELD DUP. OF						
CROL			CKM30						
Nonachlorobutadiene	100		100						
4-Chloro-3-methylphenol									
2-Methylnaphthalene									
Nonachlorocyclopentadiene									
2,4,6-Trichlorophenol									
2,4,5-Trichlorophenol									
2-Chloronaphthalene									
2-Nitroaniline									
Dimethylphthalate									
Acenaphthylene									
2,6-Dinitrotoluene									
3-Nitroaniline									
Acenaphthene									
2,4-Dinitrophenol									
4-Nitrophenol									
Dibenzofuran									
2,4-Dinitrotoluene									
Diethylphthalate									
4-Chlorophenyl phenylether									
Fluorene									
4-Nitroaniline	100		100						
4,6-Dinitro-2-methylphenol	100		100						

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS:
revised 07/.

152

AR000164

ORIGINAL
(7-9)

(g/g) SOIL SAMPLES

To calculate sample quantitation limits:

$$(CROL \cdot Dilution\ factor) / ((100 - Moisture)/100)$$

[illegible]

COPIES - Contract Required Quantitation Limit

* = result taken from diluted analysis

revised 07/90

153

AR000165

Site Name: 68th Street Dump

SOIL SAMPLES
(lb/Kg)

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

To calculate sample quantitation (limits):

$$(C_{std} \times \text{Dilution factor}) / ((100 - \text{Absoluture}) / 100)$$

[illegible]

CH01 - Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

AR000166

154

Case #: 2010 10102 Sampling Date(s): 6-2-93 - 6-3-93

To calculate sample quantitation limits:
 $(CROL \cdot dilution\ factor) / ((100 - Xmoisture) / 100)$

Sample No.	CRV30	CRV31	CRV32	CRV33	CRV34	CRV35	CRV38	CRV39	CRV40
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Moisture	53	18	12	18	9	21	24	16	15
Location	SED-13	SOIL-1	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-8	SOIL-9	SOIL-10
		FIELD SWP. OF		IN 22					
		CRV3		12-15-53					
COMPOUND									
330	Hexachlorobutadiene								
330	4-Chloro-3-methylphenol								
330	2-Methylnaphthalene								
330	Hexachlorocyclopentadiene								
330	2,4,6-Trichlorophenol								
600	2,4,5-Trichlorophenol								
330	2-Chloronaphthalene								
600	2-Nitroaniline								
330	Dimethylphthalate								
330	Acenaphthylene								
330	2,6-Dinitrotoluene								
600	3-Nitroaniline								
330	Acenaphthene								
600	2,4-Dinitrophenol								
600	4-Nitrophenol								
330	Phenazofuran								
330	2,4-Dinitrotoluene								
330	Diethylphthalate								
330	4-Chlorophenyl-phenylether								
330	Fluorene		110						
600	4-Nitroaniline								
600	4,6-Dinitro-2-methylphenol								

CAOL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS
Revised 07/90

AR000167

Site Name: 68th Street Dump

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

SOIL SAMPLES
(ug/Kg)

To calculate sample quantitation limits:
(CROL = Dilution factor / ((100 - Moisture)/100))

Sample No.	CK00	CK01	CK02	CK03	CK04	CK05	CK06	CK07	CK08	CK09	CK10
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Moisture	53	18	12	18	9	21	24	15	16	16	15
Location	SED-13	SOIL-1	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-6	SOIL-7	SOIL-8	SOIL-9	SOIL-10
		FIELD DUP. OF		112-1593							
		CK03									
COMPOUND											
N-Nitrosodiphenylamine											
4-Bromophenyl-phenylether											
Hexachlorobenzene											
Pentachlorophenol											
Phenanthrene	240	150	1200				140				
Anthracene			190								
Carbazole			140								
Di-n-butylphthalate		180	1100	2100	300		1000	560	460		
Fluoranthene	720	350	2000	130			410	120			
Pyrene	300	170	740				350				
Butylbenzylphthalate							170				
3,3'-Dichlorobenzidine											
Benzo(a)anthracene	330	250	910				130				
Chrysene	360	200	760								
bis(2-Ethylhexyl)phthalate	220	310	110		120	140	1400	1900	150		
Di-n-octylphthalate											
Benzo(b)fluoranthene	770	630	1900	220			370	290			
Benzo(k)fluoranthene											
Benzo(a)pyrene			200								
Indeno(1,2,3-cd)pyrene			140								
Dibenz(a,h)anthracene											
Benzo(g,h,i)perylene											

CROL = Contract Required Quantitation Limit

* = Results taken from dilution

Site Name: 48th Street Dump

Case #: 20101 - Sampling Date(s): 6-2-93 - 6-3-93

To calculate sample quantitation time:

$$(CRO) \cdot \text{dilution factor} / ((100 - \text{Zeo/stature})/100)$$
[illegible]**CAOL - Contract Required Quantitation Limit**

SEE NARRATIVE FOR CODE DEFINITION
revised 07

157

AR000169

SOIL SAMPLES
(ug/kg)

20101 Sampling Date(s): 6-2-93 - 6-3-93

To calculate sample quantitation in
 (CAGL = dilution factor / ((100 - Xmol%):c).

[illegible]**CAOL = Contract Required Quantitation Limit**

SEE NARRATIVE FOR CODE DEFINI
revised

AR000170

58

(b)(7)(C)
SOIL SAMPLES

To calculate sample quantitation limit

$$(C_{\text{ROL}} \times \text{Dilution factor} / ((100 - X_{\text{moisture}})) /$$

CRC#	COMPOUND	SAMPLE NO.	CXK#1	DILUTION FACTOR	% SOLIDITY	LOCATION	FIELD DUP. OF CXK#1
330	N-Nitrosodiphenylamine			1.0	16	SOIL-13	
330	4-Bromophenyl phenylether						
330	Mesochlorobenzene						
808	Pentachlorophenol						
330	Phenanithrene		14000*				
330	Anthracene		4000				
330	Carbazole		2600				
330	Bis-n-butylphthalate		700	9	710		
330	Fluoranthene		20000*		270		
330	Pyrene		13000	J	160		
330	Butylenzaphthalate						
330	3,3'-Dichlorobenzidine						
330	Benzo(a)anthracene		11000	J	170		
330	Chrysene		8500	J	140		
330	bis(2-Ethylbenzyl)phthalate		72000*	J	360		
330	Bis-n-octylphthalate						
330	Benzo(b)fluoranthene		20000*	J	520		
330	Benzot(k)fluoranthene						
330	Benzo(a)pyrene		8000	J	170		
330	Indeno(1,2,3-cd)pyrene		4200	J	170		
330	Bibenz(o,h)anthracene		1500	J	120		
330	Benzo(g,h,i)perylene		3800	J	230		

• = Results taken from dilution

revised 6

159

AR000171

Site Name: 68th Street Dump

Case #: 20101 Sampling Date(s): 6-3-93
SOG/CKM36

SOIL SAMPLES
(ug/Kg)

To calculate sample quantitation limit
(CROL = Dilution factor / ((100 - Moisture)/1)

Sample No.	CKM18	CKM19	CKM25	CKM36	CKM37	CKM42	CKM40	CKM41	CKM42
Dilution Factor	1.0	1.0	1.0/2.0	1.0	1.0	1.0	1.0	5.0	1.0
% Moisture	40	44	11	10	10	16	39	25	42
Location	SED-1	SED-2	SED-8	SOIL-6	SOIL-7	SOIL-12	SOIL-14	SOIL-15	SOIL-16
CROL									
COMPOUND									
Phenol									
bis(2-Chloroethyl)ether									
2-Chlorophenol									
1,3-Dichlorobenzene									
1,4-Dichlorobenzene									
1,2-Dichlorobenzene									
2-Methylphenol									
2,2'-oxybis(1-chloropropene)									
4-Methylphenol		250							
n-Nitroso-di-n-propylamine									
Hexachloroethane									
Nitrobenzene									
Isophorene									
2-Nitrophenol									
2,4-Dimethylphenol									
bis(2-Chloroethoxy)methane									
2,4-Dichlorophenol									
1,2,4-Trichlorobenzene									
Naphthalene									
4-Chloroaniline									

CROL = Contract Required Quantitation Limit

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revised 0

60

AR000172

20101
SOG/CKM36

314415 **7105** **SOIL**

(lb/Kg)

2010 5

95N1034508

To calculate sample quantitation limit
 $(C_{CAL} \times dilution\ factor) / ((100 - X_{sp|sture}) / 100)$

[illegible] Contract Required Quantitation Limit |

SEE NARRATIVE FOR CODE DEFINITION

revised by

AR000173

Site Name: 68th Street Dump

SOIL SAMPLES

(ug/kg)

ase #: 20101 Sampling Date(s): 6-3-93

SOC/CKM36

To calculate sample quantitation limits:
(CKOL * Dilution factor / ((100 - Moisture)/100))

Sample No.	CKM18	CKM19	CKM25	CKM34	CKM37	CKM42	CKM60	CKM61	CKM62
Dilution factor	1.0	1.0	1.0/2.0	1.0	1.0	10	1.0	5.0	1.0
% Moisture	4.0	4.6	11	10	18	16	39	25	62
Location	SEP-1	SEP-2	SEP-8	SOIL-6	SOIL-7	SOIL-12	SOIL-14	SOIL-15	SOIL-16
SOIL									
COMPLD									
330	N-Nitrosodiphenylamine								
330	4-Bromophenyl-phenylether								
330	Hexachlorobenzene								
300	Pentachlorophenol								
330	Phenanthrene	650	130	J	640	1600	J	J	710
330	Anthracene								
330	Carbazole								
330	91-n-butylphthalate	2000	180	130	2000	J	630	J	1700
330	Fluoranthene	1400	200	J	570	3400	J	J	1600
330	Pyrene	1000	170	J	450	2000	J	J	1100
330	Butylbenzylphthalate				160	J			
330	5,3'-Dichlorobenzidine								
330	Benzo(a)anthracene	500	J	J	150	J	310	J	720
330	Chrysene	470	J	J	160	J	290	J	900
330	bis(2-Ethylhexyl)phthalate	800	4100*	J	1800	J	250	J	1800
330	91-n-octylphthalate					J			
330	Benzo(b)fluoranthene	1400	230	J	440	J	760	2000	2300
330	Benzo(k)fluoranthene					J			
330	Benzo(a)pyrene	610				J	350	J	930
330	Indeno(1,2,3-cd)pyrene	440	J	J		J	260	J	740
330	9-Benz(a,h)anthracene					J			
330	Benzo(g,h,i)perylene	610	J	J		J	410	J	920

104 = Contract Required Quantitation Limit

* = Results taken from diluted analyses

AR000174

(1/bn)
WATER SAMPLES

To calculate sample quantitation limit:
(CROL = Dilution factor

[illegible]**CRQL - Contract Required Quantitation Limit**

Action Level 3100.

SEE NARRATIVE FOR CODE DEFINITION

revised 07

AR000175

2010

Sample No.	CU653	CU654	CU655	CU656	CU657	CU659
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0
Location	SU-10	SU-11	SU-12	SU-13	BLK-1	CU-1
				SAMPLE IS A		
				FIELD DUP. OF		
				FIELD BLANK.		
CEOL						
CONC/ML						
0.05	alpha-BHC					
0.05	beta-BHC					
0.05	delta-BHC					
0.05	*gamma-BHC (Lindane)					
0.05	*Heptachlor					
0.05	Aldrin					
0.05	Heptachlor Epoxide					
0.05	Endosulfan I					
0.10	Dieldrin					
0.10	4,4'-DDE					
0.10	*Endrin					
0.10	Endosulfan II					
0.10	4,4'-DDD					
0.10	Endosulfan Sulfate					
0.10	4,4'-DDT					
0.50	*Methoxychlor					
0.10	Endrin Ketone					
0.10	Endrin Aldehyde					
0.05	*alpha-Chlordane					
0.05	*gamma-Chlordane					
5.0	*Toxaphene					
1.0	*Aroclor-1016					
2.0	*Aroclor-1221					
1.0	*Aroclor-1232					
1.0	*Aroclor-1242					
1.0	*Aroclor-1248					
1.0	*Aroclor-1254					
1.0	*Aroclor-1260					

SEE NARRATIVE FOR CODE DEFINITION

**WING
(Reg)**

Site Name: 651 Treat Dump

1 SAMPLES
(ug/Kg)

To calculate sample quantitation limit
(CROL = Dilution factor / ((100 - Moisture)/10)

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

Sample No.	CRU20	CRU21	CRU22	CRU23	CRU24	CRU26	CRU27	CRU28	CRU29
Dilution factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Moisture	26	29	49	45	27	29	22	25	19
Location	SED-3	SED-4	SED-5	SED-6	SED-7	SED-9	SED-10	SED-11	SED-12
CRU20	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU21	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU22	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU23	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU24	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU26	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU27	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU28	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU29	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU30	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU31	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU32	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU33	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU34	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU35	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU36	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU37	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU38	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU39	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU40	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU41	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU42	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU43	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU44	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU45	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU46	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU47	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU48	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU49	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU51	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU52	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU53	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU54	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU55	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU56	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU57	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU58	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU59	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU60	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU61	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU62	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU63	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU64	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU65	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU66	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU67	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU68	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU69	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU70	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU71	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU72	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU73	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU74	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU75	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU76	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU77	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU78	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU79	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU80	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU81	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU82	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU83	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU84	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU85	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU86	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU89	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU90	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU91	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU92	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU93	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU94	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU95	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU96	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU97	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU98	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU99	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CRU100	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

CRU = Contract Required Quantitation Limit
SEE NARRATIVE FOR CODE DEFINITION
revised 07/

165 AR000177

Site Name: 68th Street Dump

SOIL SAMPLES

To calculate sample quantitation limit
 (CROL = Dilution factor / ((100 - Moisture)/10)

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

Sample No.	CKM30	CKM31	CKM32	CKM33	CKM34	CKM35	CKM36	CKM39	CKM40
Dilution factor	1.0	10	10	1.0	1.0	1.0	1.0	1.0	1.0
% Moisture	53	16	12	16	9	21	26	16	15
Location	SEB-13	SOIL-1	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-8	SOIL-9	SOIL-10
	SAMPLE 16 A	SAMPLE 16 A							
	FIELD DUP. OF	FIELD DUP. OF							
	CKM22	CKM43							
CROL									
1.7	alpha-BHC								UL
1.7	beta-BHC								
1.7	delta-BHC								
1.7	gamma-BHC (Lindane)								
1.7	Heptachlor								
1.7	Aldrin								
1.7	Heptachlor Epoxide								
1.7	Endosulfan I								
3.3	Dieldrin								
3.3	4,4'-DDE			32			9.8		
3.3	Endrin								
3.3	Endosulfan II								
3.3	4,4'-DDT								
3.3	Endosulfan Sulfate								
3.3	4,4'-DDT			13				15	
17	Methoxychlor								UL
3.3	Endrin Ketone								UL
3.3	Endrin Alddehyde								UL
1.7	alpha-Chlordane	39	19	7.3	4.2		11	57	
1.7	gamma-Chlordane	26	16	8.7	4.3		5.8	55	
170	Isophene								UL
33	Aroclor-1016								
67	Aroclor-1221								
33	Aroclor-1232								
33	Aroclor-1242								
33	Aroclor-1248								
33	Aroclor-1254								
33	Aroclor-1260								
				43			73		

CROL = Contract Required Quantitation Limit

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revised 07/

AR000178

166

SDG/ CXU20

Site Name: 68th Street Dump

SOIL SAMPLES
(ug/Kg)

To calculate sample quantitation limits:
CRQL = Dilution factor / ((100 - Moisture)/100)

Case #: 20101 Sampling Date(s): 6-2-93 - 6-3-93

SDG20

CRQL	COMPOUND	Sample No.	CRU#1	CRU#3	Dilution Factor	% Moisture	Location	FIELD REP. OF	CRU#1 CKV43	CRU#3	CRU#1	CRU#3
1.7	alpha-BHC	10	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	beta-BHC	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	delta-BHC	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	gamma-BHC (Lindane)	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	Heptachlor	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	Aldrin	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	Heptachlor Epoxide	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	Endosulfen I	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Dieldrin	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	4,4'-DDE	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Endrin	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Endosulfen II	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	4,4'-DDD	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Endosulfen Sulfate	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	4,4'-DDT	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
17	Methoxychlor	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Endrin Ketone	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
3.3	Endrin Aldehyde	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	alpha-Chlordane	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
1.7	gamma-Chlordane	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
170	Toxaphene	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1016	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
67	Aroclor-1221	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1232	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1242	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1248	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1254	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0
33	Aroclor-1260	19	1.0	1.0	1.0	1.0	SOIL-11	FIELD REP. OF	CRU#1 CKV43	1.0	1.0	1.0

CRQL = Contract Required Quantitation Limit

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revised 07/90

Original
Filed

AR000179

167

SDG# CKM36

Site Name: 60th Street Dump

SOIL SAMPLES

(ug/Kg)

Case #: 20101 Sampling Date(s): 6-3-93 To calculate sample quantitation limits:
(CKM * Dilution factor / ((100 - Moisture)/100))

Sample No.	CKM18	CKM19	CKM25	CKM36	CKM37	CKM42	CKM60	CKM61	CKM62
Dilution factor	10	10	1.0	1.0	1.0	10	10	100	10
% Moisture	40	46	11	10	18	16	39	25	62
Location	SED-1	SED-2	SED-8	SOIL-6	SOIL-7	SOIL-12	SOIL-14	SOIL-15	SOIL-16
COMPOUND									
1.7.1	alpha-BHC	UJ	UJ			UJ	UJ	UJ	UJ
1.7.1	beta-BHC								
1.7.1	delta-BHC								
1.7.1	gamma-BHC (lindane)								
1.7.1	Heptachlor								
1.7.1	Aldrin								
1.7.1	Heptachlor Epoxide								
1.7.1	Endosulfan I								
3.3.1	Dieldrin				53			960	
3.3.1	4,4'-DDE				16				
3.3.1	Endrin								
3.3.1	Endosulfan II								
3.3.1	4,4'-DDD				3.7				
3.3.1	Endosulfan Sulfate								
3.3.1	4,4'-DDT								
1.7.1	Heptachlor								
3.3.1	Endrin Ketene								
3.3.1	Endrin Aldehyde								
1.7.1	alpha-Chlordane					93			
1.7.1	gamma-Chlordane					108			
1.7.1	Toxaphene								
3.3.1	Aroclor-1016								
6.7.1	Aroclor-1221								
3.3.1	Aroclor-1232								
3.3.1	Aroclor-1242								
3.3.1	Aroclor-1248								
3.3.1	Aroclor-1254								
3.3.1	Aroclor-1260								

CKM = Contract Required Quantitation Limit SEE NARRATIVE FOR CODE DEFINITIONS revised 07/90

168 AR000180

CONFIDENTIAL DRAFT

VOLUME II

**Phase I
Expanded Site Inspection
Photodocumentation
for the
68th Street Dump Site
(MD-174)**

September, 1993

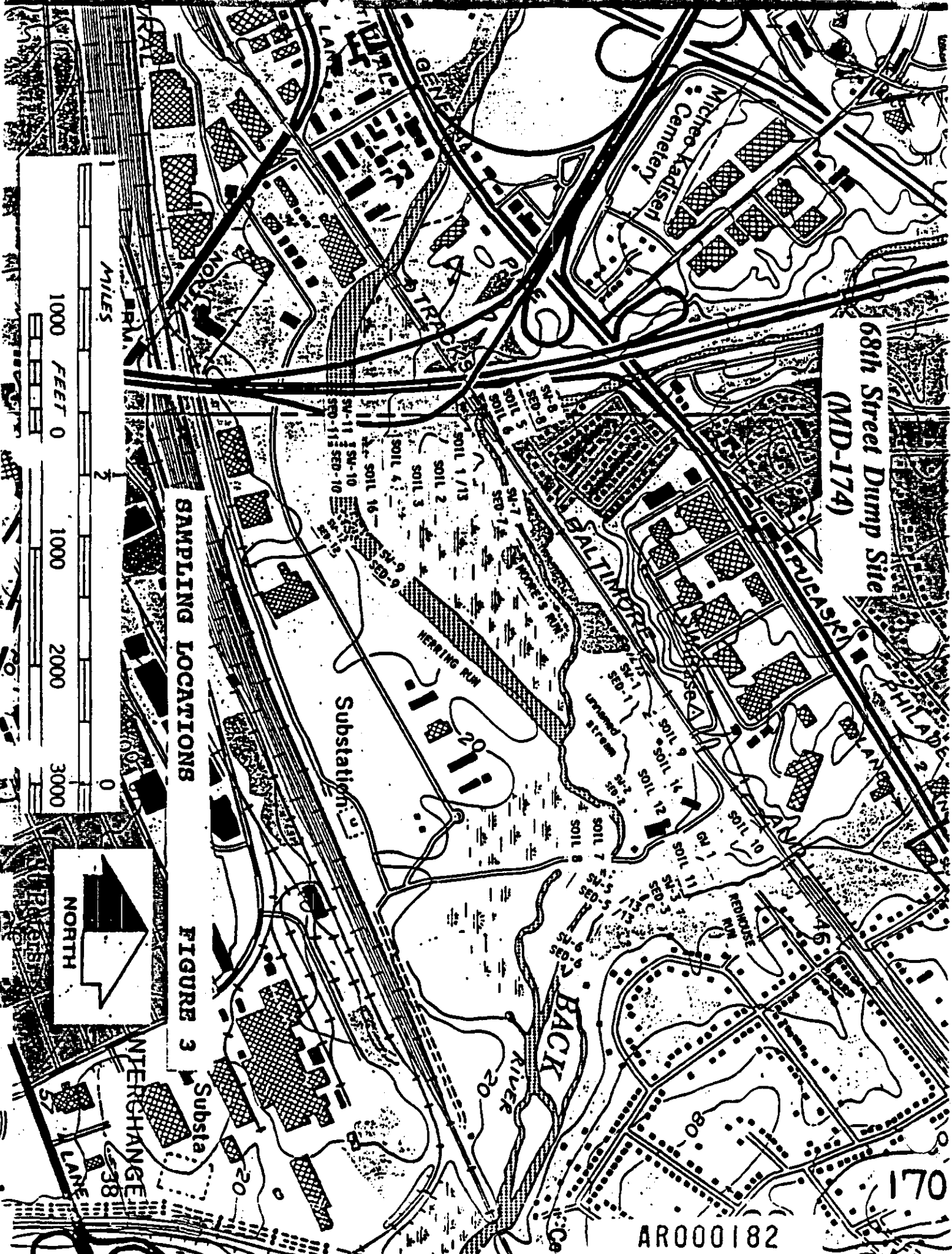
**Prepared By: Maryland Department of the Environment
Waste Management Administration
Environmental Response and Restoration Program
Site Assessment Division
2500 Broening Highway
Baltimore, Maryland 21224**

**Prepared For: U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107**

AR000181

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68th Street Dump Site (MD-174)



SAMPLING LOCATIONS

FIGURE 3

Substa.

INTERCHANGE

AR000182

170

ORIGINAL
(Red)

Sample Number	OTR#	ITR#	Sample Location	Sample Type	Remarks
SW-1 SED-1	CKW44 CKW18	MCJB44 MCJB18	Unnamed on-site stream - north	aqueous sediment	
SW-2 SED-2	CKW45 CKW19	MCJB45 MCJB19	Unnamed on-site stream - south	aqueous sediment	
SW-3 SED-3	CKW46 CKW20	MCJB46 MCJB20	Redhouse Run (on-site)	aqueous sediment	orange stained leachate
SW-4 SED-4	CKW47 CKW21	MCJB47 MCJB21	Redhouse Run NE of site	aqueous	background spike
SW-5 SED-5	CKW48 CKW22	MCJB48 MCJB22	Herring Run East	aqueous	
SW-6 SED-6	CKW49 CKW23	MCJB49 MCJB23	Redhouse Run - Herring Run	aqueous	
SW-7 SED-7	CKW50 CKW24	MCJB50 MCJB24	Moore's Run - on-site	aqueous	
SW-8 SED-8	CKW51 CKW25	MCJB51 MCJB25	Moore's Run NW of site	aqueous	background-refuse 100yd. upstream
SW-9 SED-9	CKW52 CKW26	MCJB52 MCJB26	Herring Run West - 1	aqueous	orange-red stained sediment
SW-10 SED-10	CKW53 CKW27	MCJB53 MCJB27	Herring Run West - 2	aqueous	same as above-not as dark
SW-11 SED-11	CKW54 CKW28	MCJB54 MCJB28	Herring Run - south of Colgate Pay dump	aqueous	background
SW-12 SED-12	CKW55 CKW29	MCJB55 MCJB29	Offsite drainage culvert	aqueous	collected south side Herring Run
SW-13 SED-13	CKW56 CKW30	MCJB56 MCJB30	SW-5 SED-5		duplicate
GW-1	CKW59	MCJB59	BFI Facility	aqueous	hand pump
BLK-1	CKW57	MCJB57	N/A		field blank
BLK-TP1	CKW58	N/A	N/A		trip blank

AR000183

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ORIGINAL
(Revised)

Sample Number	QTR#	ITR#	Sample Location	Remarks
Soil-1*	CKW31	MCJ831	First landfill north (crane)	see map 3
Soil-2	CKW32	MCJ832	First landfill central	see map 3
Soil-3*	CKW33	MCJ833	First landfill central	see map 3
Soil-4	CKW34	MCJ834	First landfill south central	
Soil-5*	CKW35	MCJ835	North of Site (western side)	background
Soil-6*	CKW36	MCJ836	North of Site (western side)	background
Soil-7	CKW37	MCJ837	Eastern landfill	
Soil-8	CKW38	MCJ838	Eastern landfill	
Soil-9*	CKW39	MCJ839	Small abandoned building (PCBs)	
Soil-10	CKW40	MCJ840	M.F. Winstead Company, Inc.	
Soil-11*	CKW41	MCJ841	Browning-Ferris Industries (BFI) east	composite
Soil 12*	CKW42	MCJ842	BFI (west)	
Soil 13*	CKW43	MCJ843	Soil 1	duplicate
Soil 14*	CKW60	MCJ860	Broken pipeline behind building	
Soil 15*	CKW61	MCJ861	P.405, north radio towers	
Soil-16*	CKW62	MCJ862	Downhill Soil 4	composite to 2'

*collected at a depth of less than two feet

AR000184

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HISTORICAL PHOTOGRAPH (1961)
ROBB TYLER LANDFILL AND INCINERATOR



PANORAMIC VIEW OF SITE
(BACKGROUND)

AR000185



MOTOR BIKE TRAILS ON FIRST LANDFILL (PARCEL 340)



DEBRIS ON FIRST LANDFILL
(PARCEL 340)

AR000186



SOIL 1, 13



SOIL 2

AR000187



DRUMS UPHILL FROM SOIL 2

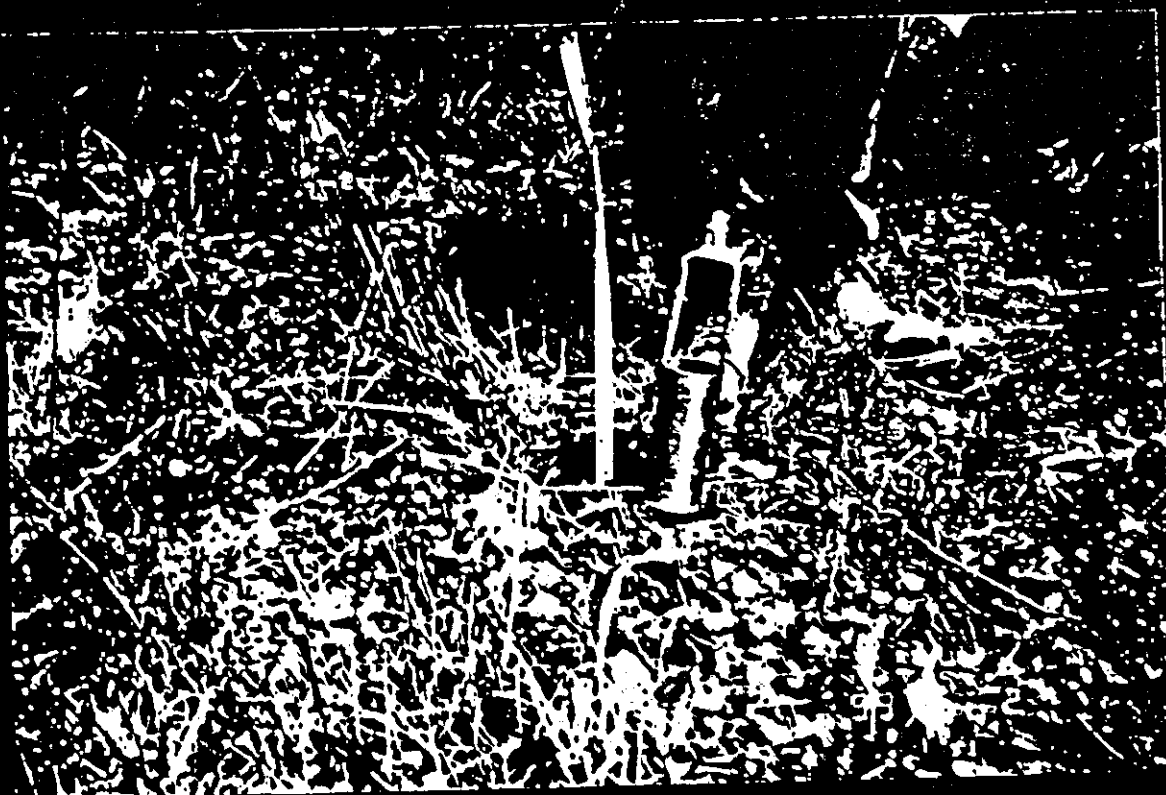


SOIL 3

AR000188



SOIL 4



SOILS 5 & 6

AR000189



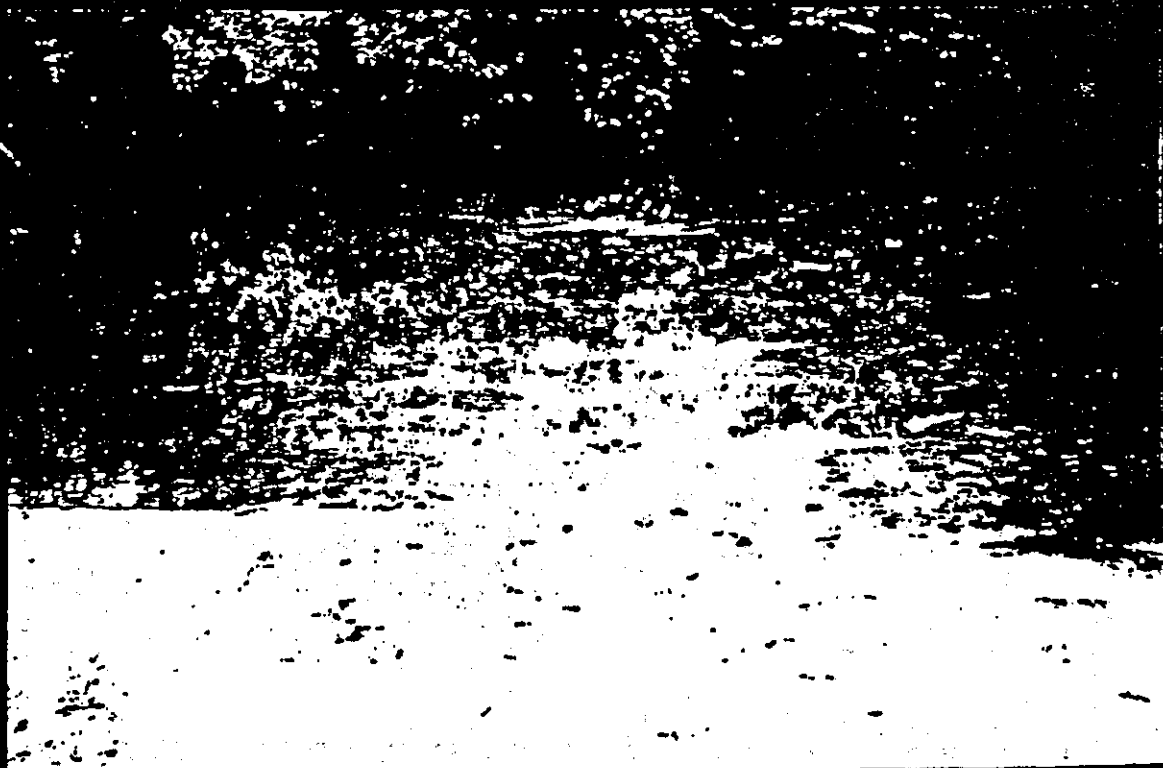
SOIL 16



SOIL 16



SW/SED 9 (Approximate Location)
(Note red-orange stained sediment)



SW/SED 10 (Approximate Location)

AR000191



SW/SED 11

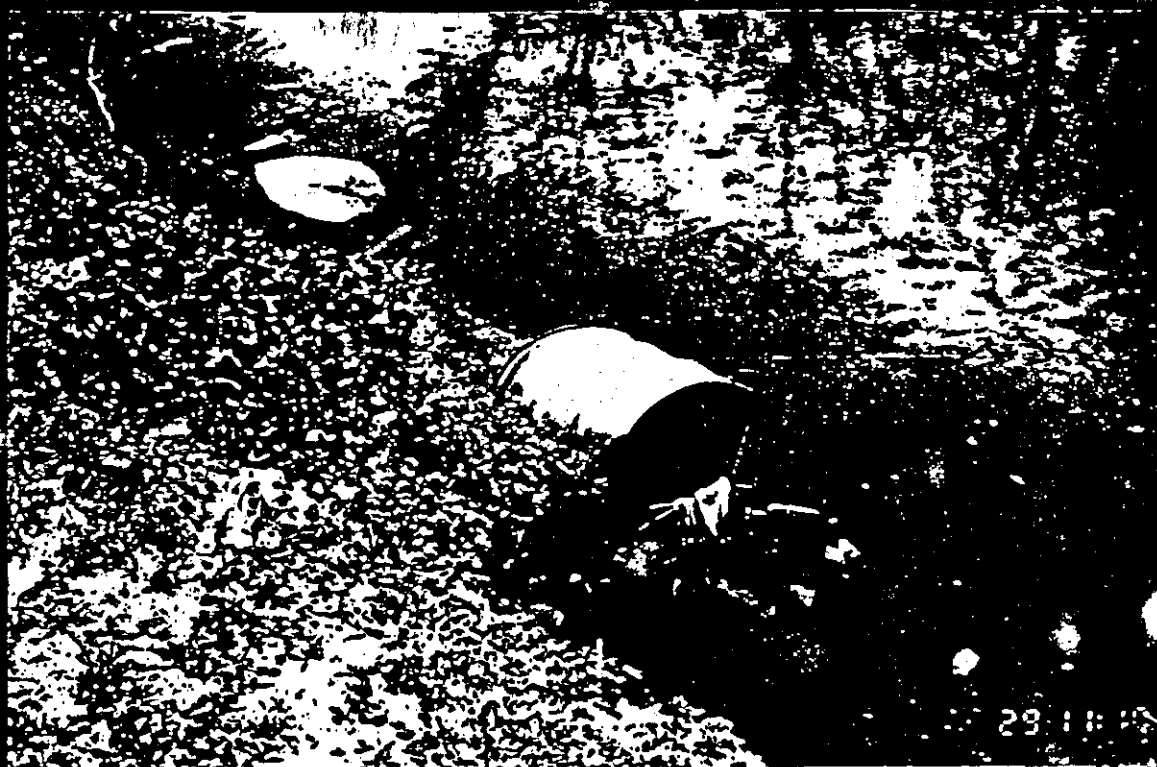
(Approximate Location)



CONFLUENCE OF HERRING RUN-HERRING RUN,
WEST OF ISLAND AREA LANDFILL

(Note dead fish in foreground)

AR000192



DRUM IN HERRING RUN, SOUTH OF FIRST LANDFILL



HERRING RUN (PARCEL 340)



COLGATE PAY DUMP (MD-176)
ADJACENT TO SITE



DRUM AT HERRING RUN
SOUTHERN END FIRST LANDFILL

AR000194

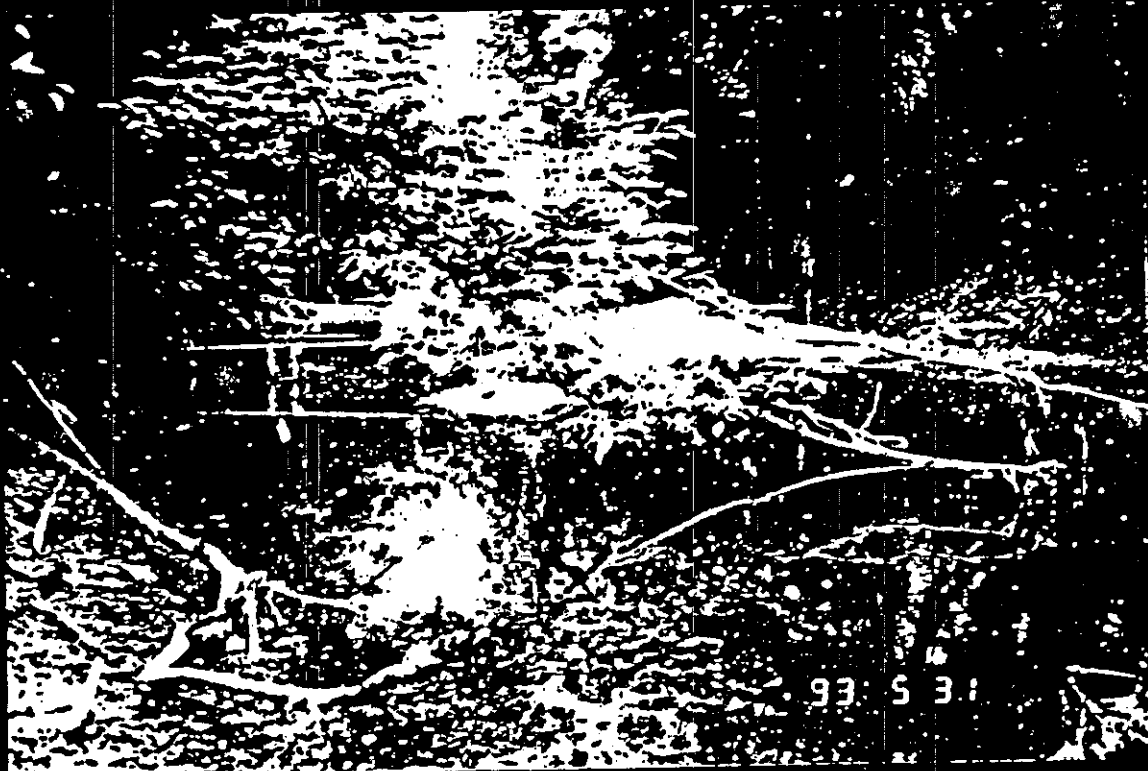


MOORE'S RUN (DOWNSTREAM)

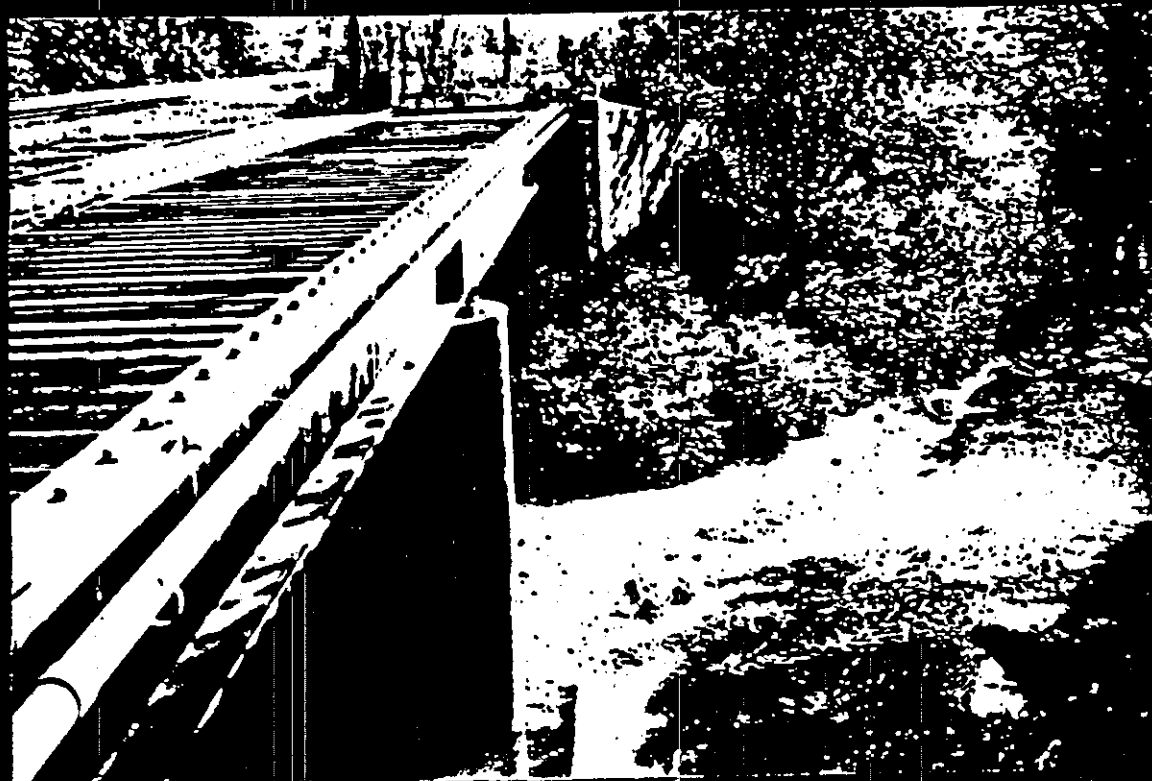


SW/SED/7

AR000195



SW/SED 8



MOORE'S RUN - NORTHERN PERIMETER OF ORIGINAL LANDFILL

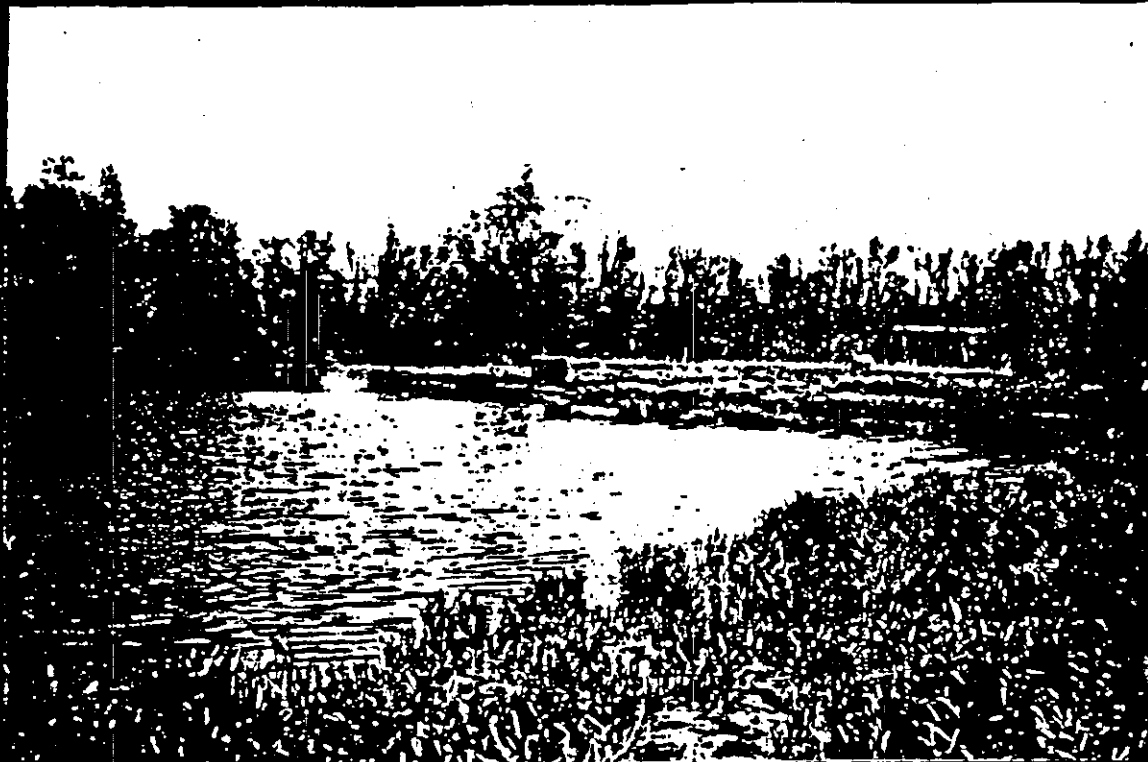
AR000196



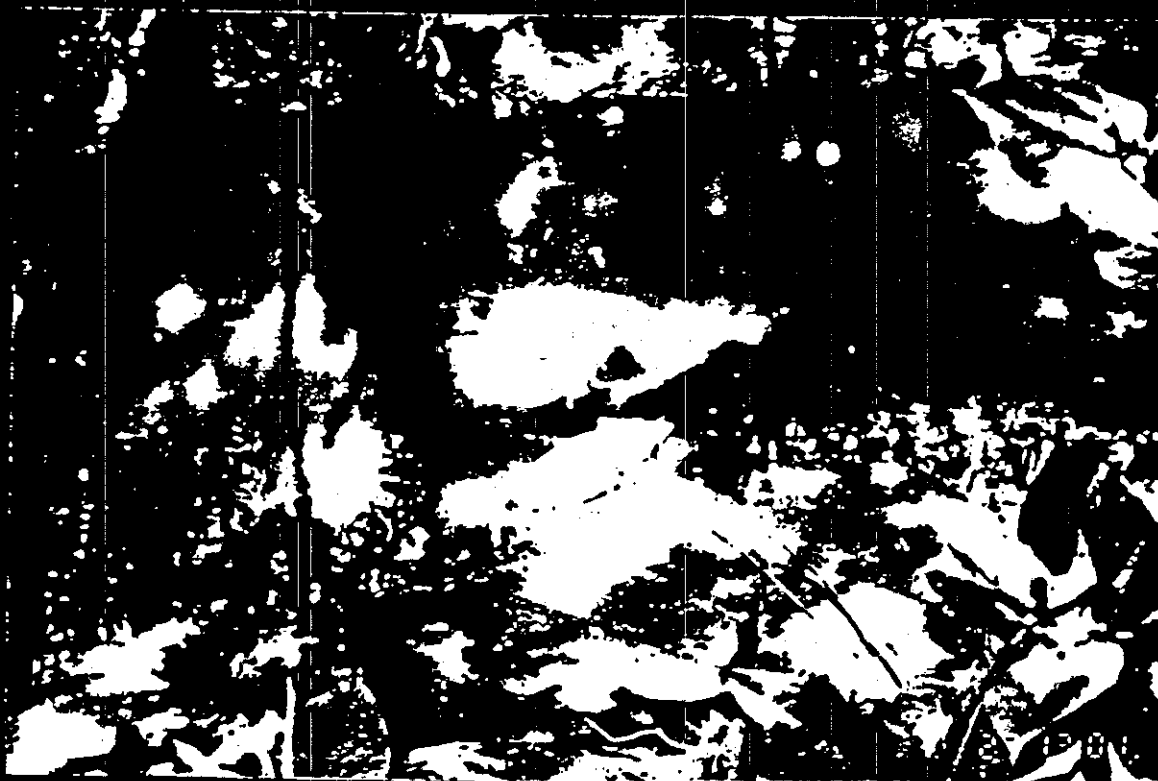
BUILDING LOCATED ACROSS FROM SOIL 15



SOIL 15

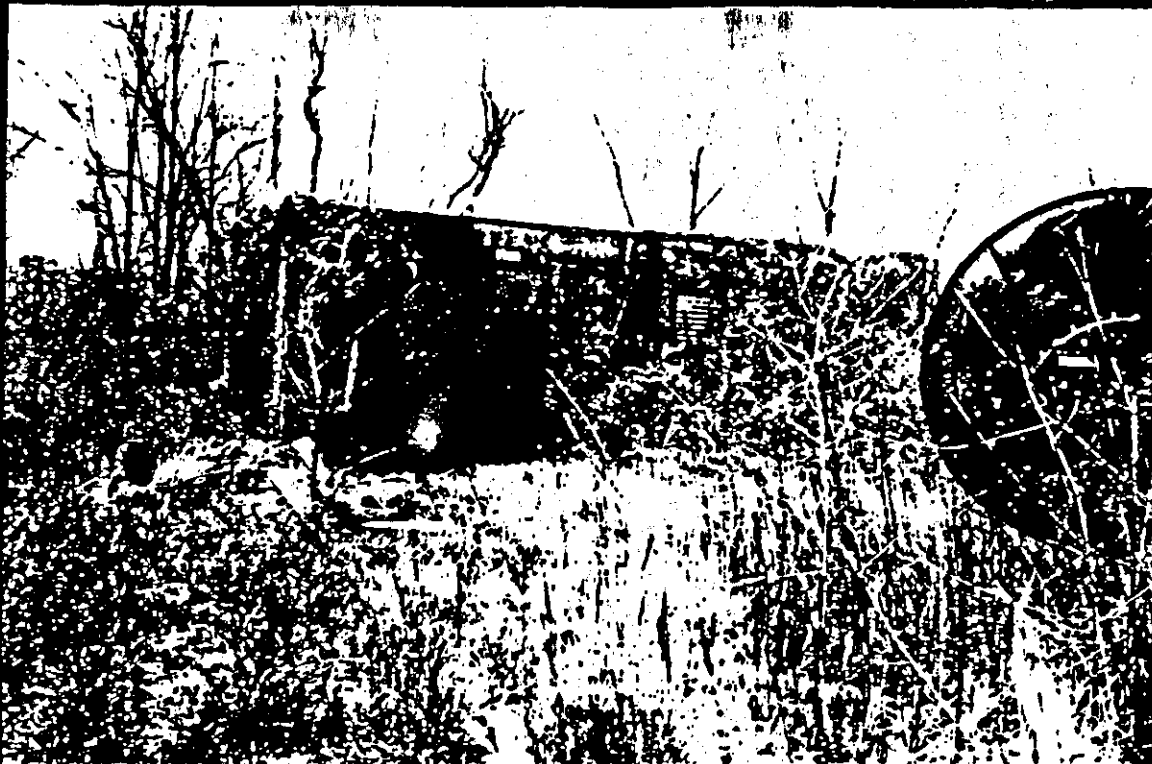


ONSITE POND FROM WHICH UNNAMED STREAM DRAINS



DEAD FISH IN UNNAMED ONSITE STREAM

AR000198



ABANDONED TRANSMITTER STATION
WITH PCB LABEL WARNING



ELECTRONIC REFUSE AT ABANDONED

AR000199



SOIL 9



SOIL 14

AR000200



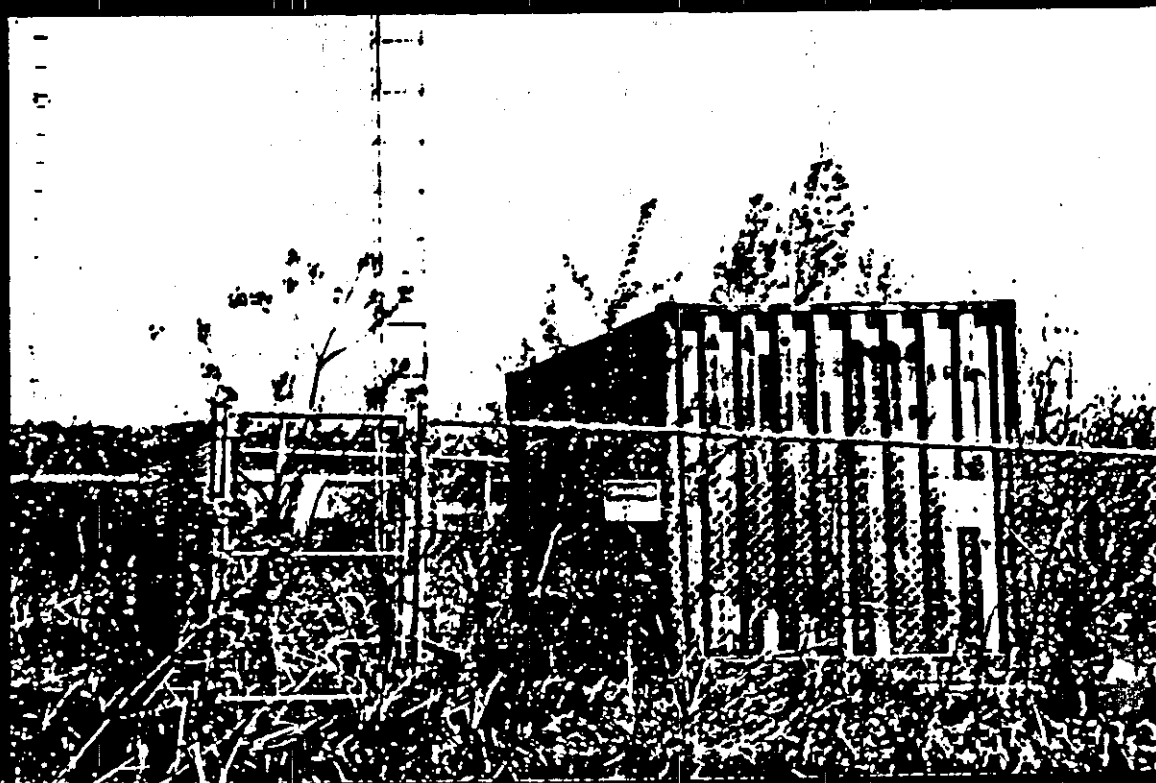
SW/SED 1



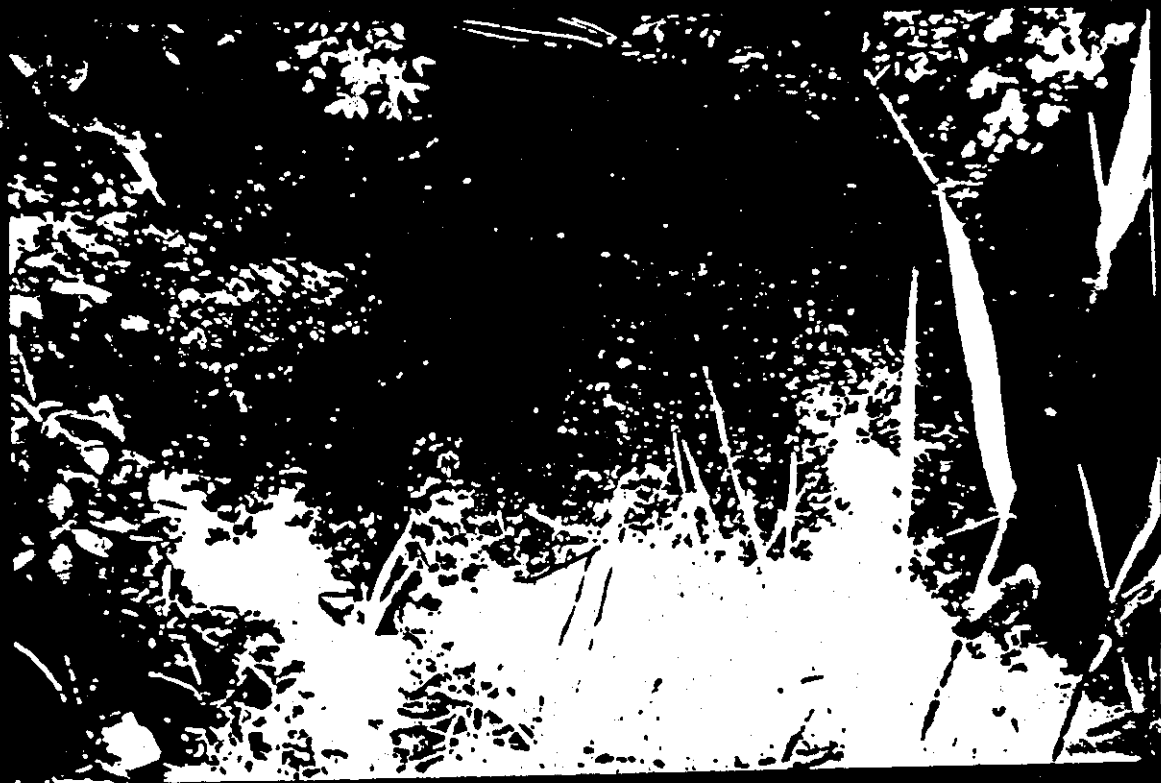
SW/SED 2



OPEN BURNING ON PARCEL 405



ONE OF THREE ONSITE RADIO TOWERS



SW/SED 4



SW/SED 3

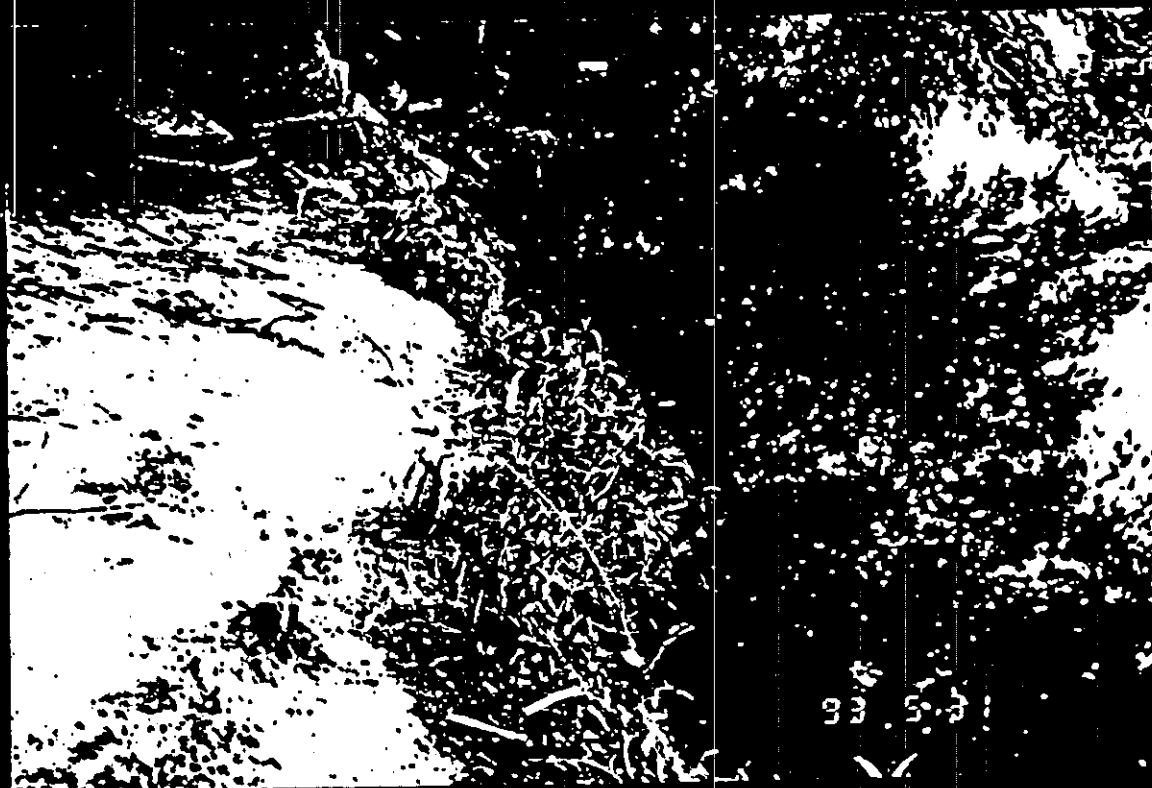
(Note: Orange Limestone)

AR000203



93 5 31

SW/SED 6



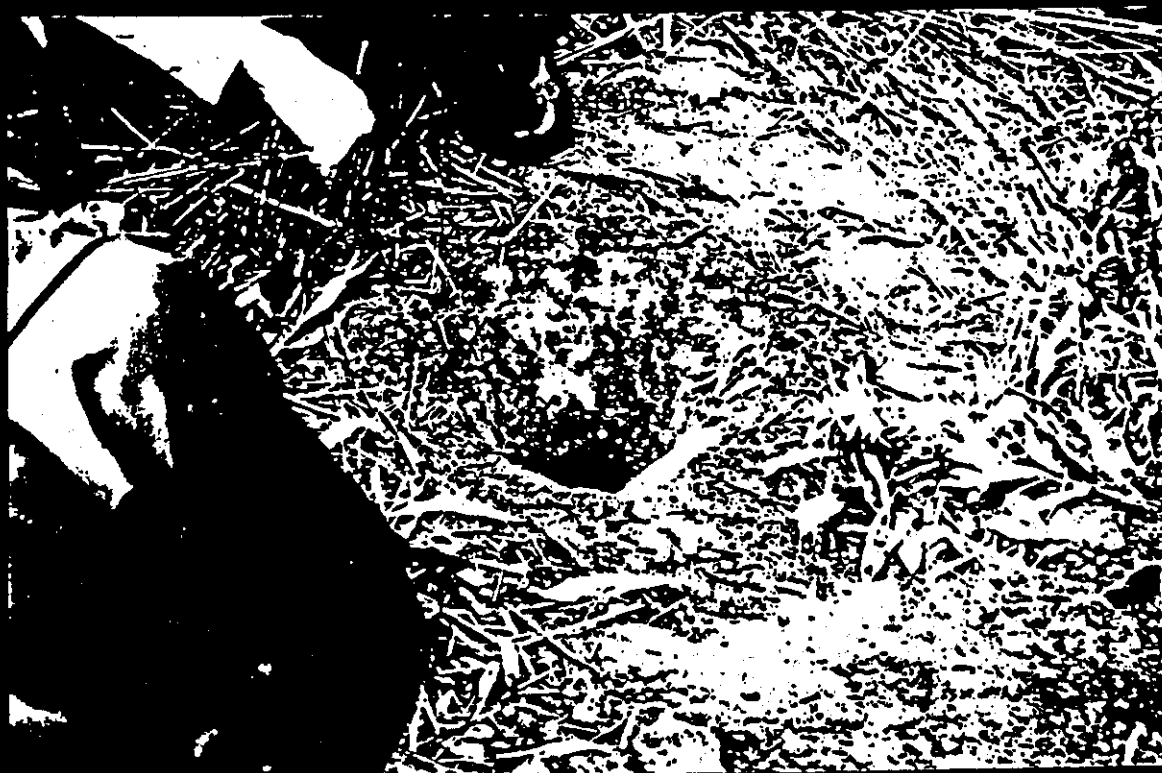
93 5 31

SW/SED 5

AR000204



ISLAND AREA LANDFILL FACING WEST



SCOTT

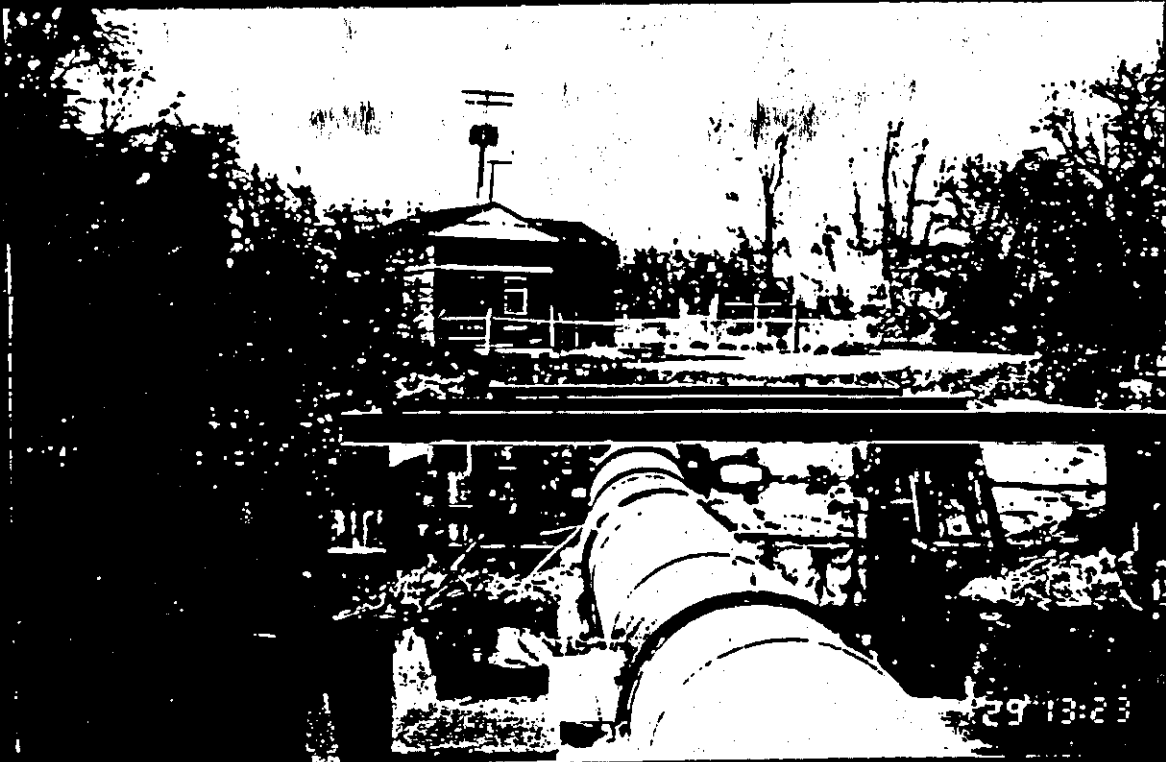
AR000205



SOIL 7



SOIL 7



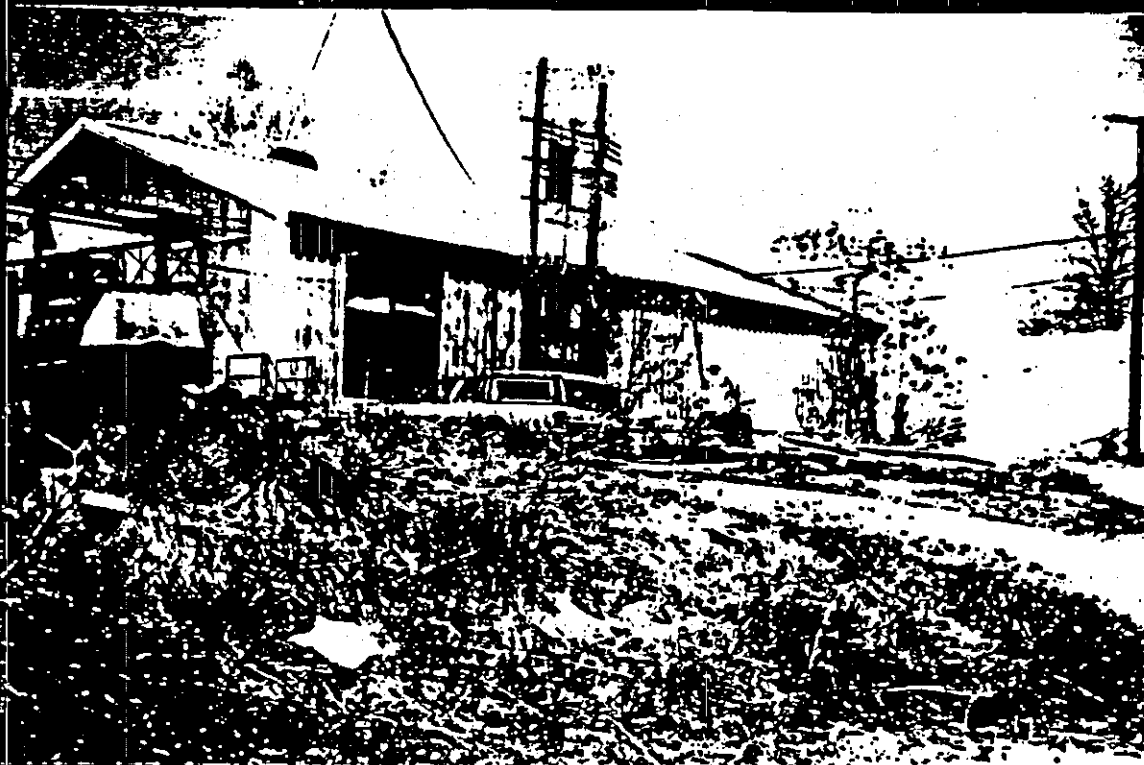
BALTIMORE COUNTY PUMPING STATION, WITH PIPELINE
LEADING TOWARD ISLAND AREA LANDFILL



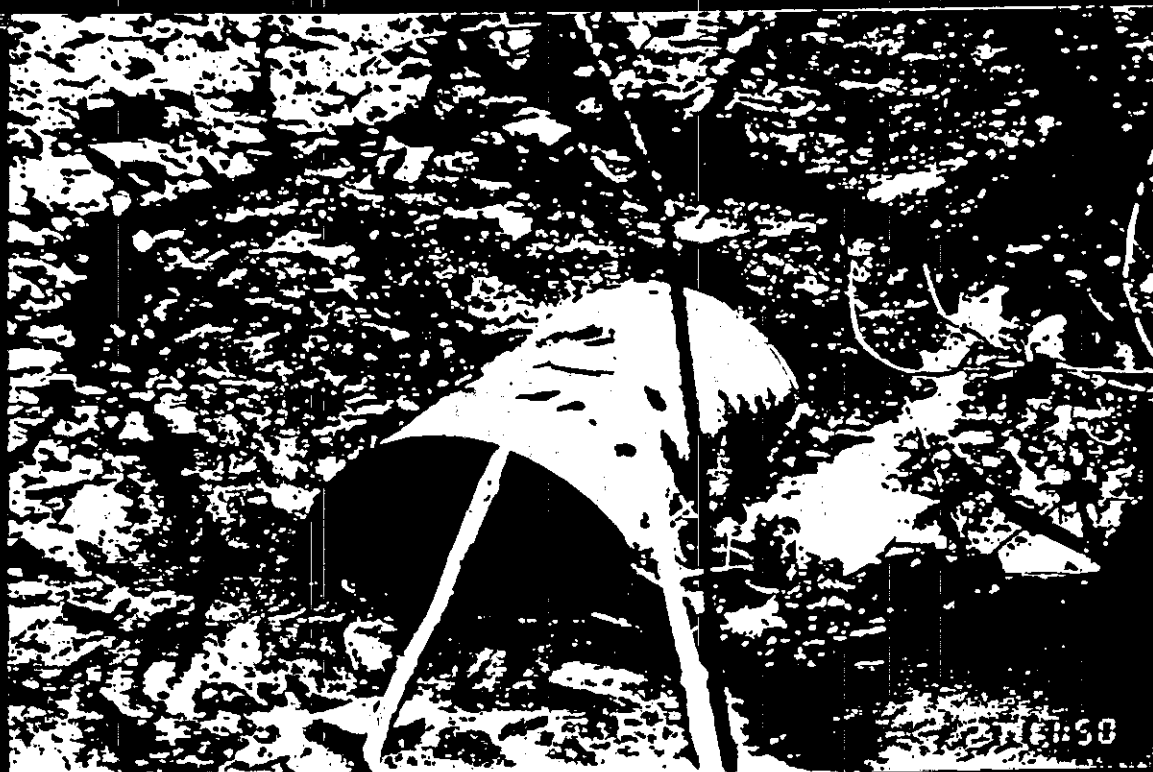
SOIL 10

AR000207

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R.M. WINSTEAD SITE (MD-133),
LOCATED ON MD-174 SITE



DRUM IN REDHOUSE RUN, NEXT TO
WINSTEAD PROPERTY (MD-133)



DRUM IN REDHOUSE RUN, NEXT TO
PROPERTY LEASED BY BFI



SOIL 11

AR000209



GW-1



SOIL 12

AR000210

ORIGINAL
(4)

Phase I
Expanded Site Inspection
for the
68th Street Dump Site
(MD-174)
Volume III

September, 1993

Prepared By: Maryland Department of the Environment
Waste Management Administration
Environmental Response and Restoration Program
Site Assessment Division
2500 Broening Highway
Baltimore, Maryland 21224

Prepared For: U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

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AR000211

ORIGINAL
(Page)

ATTACHMENT III

Sample Number	OTR#	ITR#	Sample Location	Sample Type	Remarks
SW-1 SED-1	CKW44 CKW18	MCJB44 MCJB18	Unnamed on-site stream - north	aqueous sediment	
SW-2 SED-2	CKW45 CKW19	MCJB45 MCJB19	Unnamed on-site stream - south	aqueous sediment	
SW-3 SED-3	CKW46 CKW20	MCJB46 MCJB20	Redhouse Run (on-site)	aqueous sediment	orange stained leachate
SW-4 SED-4	CKW47 CKW21	MCJB47 MCJB21	Redhouse Run NE of site	aqueous	background spike
SW-5 SED-5	CKW48 CKW22	MCJB48 MCJB22	Herring Run East	aqueous	
SW-6 SED-6	CKW49 CKW23	MCJB49 MCJB23	Redhouse Run - Herring Run	aqueous	
SW-7 SED-7	CKW50 CKW24	MCJB50 MCJB24	Moore's Run - on-site	aqueous	
SW-8 SED-8	CKW51 CKW25	MCJB51 MCJB25	Moore's Run NW of site	aqueous	background-refuse 100yd. upstream
SW-9 SED-9	CKW52 CKW26	MCJB52 MCJB26	Herring Run West - 1	aqueous	orange-red stained sediment
SW-10 SED-10	CKW53 CKW27	MCJB53 MCJB27	Herring Run West - 2	aqueous	same as above-not as dark
SW-11 SED-11	CKW54 CKW28	MCJB54 MCJB28	Herring Run - south of Colgate Pay dump	aqueous	background
SW-12 SED-12	CKW55 CKW29	MCJB55 MCJB29	Offsite drainage culvert	aqueous	collected south side Herring Run
SW-13 SED-13	CKW56 CKW30	MCJB56 MCJB30	SW-5 SED-5		duplicate
GW-1	CKW59	MCJB59	BFI Facility	aqueous	hand pump
BLK-1	CKW57	MCJB57	N/A		field blank
BLK-TP1	CKW58	N/A	N/A		trip blank

Sample Number	QTR#	ITR#	Sample Location	Remarks
Soil-1*	CKW31	MCJ831	First landfill north (crane)	see map 3
Soil-2	CKW32	MCJ832	First landfill central	see map 3
Soil-3*	CKW33	MCJ833	First landfill central	see map 3
Soil-4	CKW34	MCJ834	First landfill south central	
Soil-5*	CKW35	MCJ835	North of Site (western side)	background
Soil-6*	CKW36	MCJ836	North of Site (western side)	background
Soil-7	CKW37	MCJ837	Eastern landfill	
Soil-8	CKW38	MCJ838	Eastern landfill	
Soil-9*	CKW39	MCJ839	Small abandoned building (PCBs)	
Soil-10	CKW40	MCJ840	M.F. Winstead Company, Inc.	
Soil-11*	CKW41	MCJ841	Browning-Ferris Industries (BFI) east	composite
Soil 12*	CKW42	MCJ842	BFI (west)	
Soil 13*	CKW43	MCJ843	Soil 1	duplicate
Soil 14*	CKW60	MCJ860	Broken pipeline-behind building	
Soil 15*	CKW61	MCJ861	P.405, north radio towers	
Soil-16*	CKW62	MCJ862	Downhill Soil 4	composite to 2'

*collected at a depth of less than two feet

APPENDIX A
RESULTS REPORTED BY LABORATORY
FORM IS
SDG MCJB18

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AR000215

EPA SAMPLE NO

INORGANIC ANALYSIS DATA SHEET

MCJ818

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ818

Matrix (soil/water): SOIL

Lab Sample ID: 06046-018

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 40.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-3	Aluminum	9810			P
7440-38-2	Antimony	8.1	U	N	P
7440-38-2	Arsenic	10.2		N	P
7440-39-3	Barium	335			P
7440-41-7	Beryllium	0.91	B		P
7440-43-8	Cadmium	3.4			P
7440-70-2	Calcium	18800			P
7440-47-3	Chromium	191			P
7440-48-4	Cobalt	11.4	B		P
7440-50-8	Copper	189			P
7439-99-6	Iron	27100			P
7439-92-1	Lead	591		S	P
7439-95-1	Magnesium	6720			P
7439-96-3	Manganese	367			P
7439-97-6	Mercury	0.55			CV
7440-02-0	Nickel	107		*	P
7440-09-7	Potassium	1610	B		P
7782-49-2	Selenium	1.5	U	W	P
7440-22-4	Silver	3.2	B		P
7440-23-5	Sodium	406	B		P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	63.4			P
7440-66-6	Zinc	647			P
	Cyanide	1.2	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS AND WOOD

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJB19 SED-2

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJB18

Matrix (soil/water): SOIL

Lab Sample ID: 06046-02S

Level (low/med): LOW

Date Received: 06/04/93

% Solids:

64.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-5	Aluminum	4600			P
7440-38-2	Antimony	5.5	U	N	P
7440-38-2	Arsenic	2.5	B	N	P
7440-39-3	Barium	77.9			P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	0.52	U		P
7440-70-2	Calcium	7230			P
7440-47-3	Chromium	54.8			P
7440-48-4	Cobalt	6.5	B		P
7440-50-8	Copper	42.7			P
7439-89-6	Iron	11900			P
7439-02-1	Lead	92.2			P
7439-95-4	Magnesium	3830			P
7439-96-3	Manganese	215			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	25.4		*	P
7440-09-7	Potassium	1000	B		P
7782-49-2	Selenium	0.99	U		P
7440-22-4	Silver	1.2	B		P
7440-23-5	Sodium	104	B		P
7440-28-0	Thallium	0.36	U		P
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	138			P
	Cyanide	0.74	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ825 SED-8

Lab Name: SKINNER & SHERMAN LABS.

Contract: 62-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJ813

Matrix (soil/water): SOIL

Lab Sample ID: 06046-03S

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 80.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1020			P
7440-33-0	Antimony	4.3	U	N	P
7440-33-2	Arsenic	1.3	B	N	P
7440-33-3	Barium	10.0	B		P
7440-41-7	Beryllium	0.43	B		P
7440-43-6	Cadmium	0.41	U		P
7440-70-2	Calcium	4010			P
7440-47-3	Chromium	9.2			P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	6.7			P
7439-39-6	Iron	7390			P
7439-92-1	Lead	43.4			P
7439-95-4	Magnesium	1940			P
7439-96-5	Manganese	114			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	5.7	B	*	P
7440-09-7	Potassium	74.7	B		P
7782-49-2	Selenium	0.93	B	+	P
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium	71.4	B		P
7440-28-0	Thallium	0.29	U		P
7440-62-2	Vanadium	10.4	B		P
7440-66-6	Zinc	37.3			P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D2-0039

MCJB37

SD16-7

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB18

Matrix (soil/water): SCIL

Lab Sample ID: 06046-045

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 80.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9680	-		P
7440-38-2	Antimony	4.4	U	N	P
7440-18-2	Arsenic	3.8		SN	P
7440-38-2	Barium	249			P
7440-41-7	Beryllium	0.49	B		P
7440-13-6	Cadmium	1.8			P
7440-70-2	Calcium	8500			P
7440-47-3	Chromium	196			P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	209			P
7439-89-9	Iron	20100			P
7439-92-1	Lead	109			P
7439-95-4	Magnesium	2130			P
7439-96-3	Manganese	253			P
7439-97-6	Mercury	1.2			CV
7440-02-0	Nickel	40.0		*	P
7440-09-7	Potassium	673	B		P
7782-49-2	Selenium	2.3		+	P
7440-22-4	Silver	7.4			P
7440-23-5	Sodium	137	B		P
7440-28-0	Thallium	0.29	U	W	P
7440-62-2	Vanadium	36.2			P
7440-66-6	Zinc	519			P
	Cyanide	0.59	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D2-0039

MCJB38
SCIL-9

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJB18

Matrix (soil/water): SOIL

Lab Sample ID: 06046-055

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 80.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8520			P
7440-36-0	Antimony	2.4	U	N	P
7440-38-2	Arsenic	6.5		SN	P
7440-39-3	Barium	269			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	2.0			P
7440-70-2	Calcium	5990			P
7440-47-3	Chromium	199			P
7440-48-4	Cobalt	6.5	B		P
7440-50-2	Copper	207			P
7437-89-6	Iron	19900			P
7437-92-1	Lead	107			P
7437-95-4	Magnesium	1350			P
7437-96-5	Manganese	226			P
7437-97-6	Mercury	0.66			CV
7440-02-0	Nickel	34.9		*	P
7440-09-7	Potassium	574	B		P
7782-49-2	Selenium	4.1	U	W	F
7440-22-4	Silver	7.9			P
7440-23-5	Sodium	87.8	B		P
7440-28-0	Thallium	0.30	U		F
7440-62-2	Vanadium	31.2			P
7440-66-6	Zinc	475			P
	Cyanide	2.0			CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 62-D2-0039

MCJ339

SOIL-9

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ318

Matrix (soil/water): SOIL

Lab Sample ID: 06046-065

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 81.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-3	Aluminum	1670			P
7440-38-0	Antimony	9.5	B	N	P
7440-38-2	Arsenic	12.6		SN	P
7440-39-3	Barium	73.2			P
7440-41-7	Beryllium	0.23	B		P
7440-43-0	Cadmium	10.1			P
7440-70-2	Calcium	2570			P
7440-47-3	Chromium	31.5			P
7440-48-4	Cobalt	3.9	B		P
7440-50-8	Copper	936			P
7439-89-6	Iron	8410			P
7439-92-1	Lead	2990			F
7439-95-4	Magnesium	849	B		P
7439-96-5	Manganese	114			P
7439-97-6	Mercury	0.73			CV
7440-02-0	Nickel	27.5		*	P
7440-09-7	Potassium	166	B		P
7782-49-2	Selenium	0.80	U	W	F
7440-22-4	Silver	3.3			P
7440-23-5	Sodium	73.5	B		P
7440-28-0	Thallium	0.29	U		F
7440-62-2	Vanadium	10.3	B		P
7440-66-6	Zinc	196			P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 62-02-0039

MCJB40
SOIL-10

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB18

Matrix (soil/water): SOIL

Lab Sample ID: 06046-075

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 84.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8400			P
7440-38-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	3.2		N	P
7440-39-3	Barium	40.5	S		P
7440-41-7	Beryllium	0.47	S		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	182	S		P
7440-47-3	Chromium	29.2			P
7440-48-4	Cobalt	8.7	S		P
7440-50-8	Copper	19.3			P
7439-89-6	Iron	25800			P
7439-92-1	Lead	9.9			P
7439-95-4	Magnesium	2220			P
7439-96-5	Manganese	183			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	16.9		*	P
7440-09-7	Potassium	704	S		P
7782-49-2	Selenium	0.76	U	W	P
7440-22-4	Silver	1.1	S		P
7440-23-5	Sodium	87.2	S		P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	36.4			P
7440-66-6	Zinc	43.4			P
	Cyanide	0.57	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJB41

Soil-11

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB18

Matrix (soil/water): SOIL

Lab Sample ID: 06046-085

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 79.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14500			P
7440-36-0	Antimony	13.0		N	P
7440-38-2	Arsenic	33.2		SN	F
7440-39-3	Barium	585			P
7440-41-7	Beryllium	0.55	B		P
7440-43-0	Cadmium	6.3			P
7440-70-2	Calcium	9470			P
7440-47-3	Chromium	57.5			P
7440-48-4	Cobalt	13.6			P
7440-50-8	Copper	467			P
7439-89-6	Iron	73900			P
7439-92-1	Lead	1530			F
7439-95-4	Magnesium	1130	B		P
7439-96-5	Manganese	501			P
7439-97-6	Mercury	0.85			CV
7440-02-0	Nickel	224		*	P
7440-09-7	Potassium	483	B		P
7792-49-2	Selenium	0.82	U	W	F
7440-22-4	Silver	17.5			P
7440-23-5	Sodium	482	B		P
7440-28-0	Thallium	0.34	B		F
7440-62-2	Vanadium	55.9			P
7440-66-6	Zinc	1520			P
	Cyanide	0.75			CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

MCJ342

SOIL

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ818

Matrix (soil/water): SOIL

Lab Sample ID: 06046-095

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 33.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-3	Aluminum	12400			P
7440-36-0	Antimony	4.2	U	N	P
7440-33-2	Arsenic	9.2		SN	F
7440-39-3	Barium	139			P
7440-41-7	Beryllium	1.7			P
7440-43-2	Cadmium	3.2			P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	48.7			P
7440-48-4	Cobalt	5.1	B		P
7440-50-8	Copper	110			P
7439-59-6	Iron	23300			P
7439-92-1	Lead	204		S	F
7439-95-4	Magnesium	13100			P
7439-96-5	Manganese	750			P
7439-97-6	Mercury	0.23			CV
7440-02-0	Nickel	31.4		*	P
7440-09-7	Potassium	683	B		P
7782-49-2	Selenium	0.76	U		F
7440-22-4	Silver	2.2	B		P
7440-23-5	Sodium	338	B		P
7440-28-0	Thallium	0.29	U		F
7440-62-2	Vanadium	32.7			P
7440-66-6	Zinc	364			P
	Cyanide	0.57	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 62-02-0039

MCJ860

SOIL - 1+

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ818

Matrix (soil/water): SOIL

Lab Sample ID: 06046-10S

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 56.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3670			P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	6.4		N	P
7440-39-3	Barium	113			P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	0.60	B		P
7440-70-2	Calcium	6610			P
7440-47-3	Chromium	41.2			P
7440-48-4	Cobalt	5.9	B		P
7440-50-8	Copper	50.7			P
7439-89-6	Iron	13000			P
7439-92-1	Lead	151			P
7439-95-4	Magnesium	2530			P
7439-96-5	Manganese	355			P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	27.5		*	P
7440-09-7	Potassium	378	B		P
7782-49-2	Selenium	1.2	U		F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	248	B		P
7440-28-0	Thallium	0.42	U		F
7440-62-2	Vanadium	23.0			P
7440-66-6	Zinc	197			P
	Cyanide	0.88	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES; ROOTS

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

MCJ861

SOIL 115

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ813

Matrix (soil/water): SOIL

Lab Sample ID: 06046-115

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 76.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5350			P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	10.8		SN	P
7440-39-3	Barium	708			P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	10.8			P
7440-70-2	Calcium	3550			P
7440-47-3	Chromium	417			P
7440-48-4	Cobalt	4.8	B		P
7440-50-8	Copper	798			P
7439-89-6	Iron	21500			P
7439-92-1	Lead	723			F
7439-95-4	Magnesium	915	B		P
7439-96-5	Manganese	81.2			P
7439-97-6	Mercury	14.6			CV
7440-02-0	Nickel	25.1		*	P
7440-09-7	Potassium	378	B		P
7782-49-2	Selenium	4.0	U	W	F
7440-22-4	Silver	47.3			P
7440-23-5	Sodium	74.9	B		P
7440-28-0	Thallium	0.29	U		F
7440-62-2	Vanadium	29.7			P
7440-66-6	Zinc	658			P
	Cyanide	1.2			CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-C039

MCJB62
SOIL-1.0

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB18

Matrix (soil/water): SOIL

Lab Sample ID: 06046-125

Level (low/med): LOW

Date Received: 06/04/93

% Solids: 43.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-3	Aluminum	10500	-		P
7440-38-2	Antimony	8.0	U	N	P
7440-38-2	Arsenic	4.1	3	N	P
7440-38-3	Barium	148			P
7440-31-7	Beryllium	0.63	8		P
7440-43-9	Cadmium	0.95	8		P
7440-70-2	Calcium	13100			P
7440-47-3	Chromium	58.1			P
7440-48-4	Cobalt	10.8	8		P
7440-50-8	Copper	86.5			P
7439-92-6	Iron	18300			P
7439-92-1	Lead	236			P
7439-95-1	Magnesium	5220			P
7439-96-5	Manganese	374			P
7439-97-5	Mercury	0.73			CV
7440-02-0	Nickel	41.6		*	P
7440-09-7	Potassium	1960	8		P
7782-49-2	Selenium	1.5	U		P
7440-22-4	Silver	2.4	8		P
7440-23-5	Sodium	192	8		P
7440-28-0	Thallium	0.53	U		P
7440-62-2	Vanadium	39.5			P
7440-66-6	Zinc	360			P
	Cyanide	1.1	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, - ROOTS

APPENDIX A
RESULTS REPORTED BY LABORATORY
FORM IS
SDG MCJB20

216

AR000228

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0037

MCJ320
SEP 93

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJ320

Matrix (soil/water): SOIL

Lab Sample ID: 06018-015

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 71.4

Concentration Units (us/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-00-2	Aluminum	2350			
7440-38-2	Antimony	4.5	U	N	
7440-33-2	Arsenic	2.6	S	N	
7440-09-2	Barium	34.1	S		P
7440-41-7	Beryllium	0.26	S		P
7440-43-2	Cadmium	0.44	U		P
7440-70-2	Calcium	7510			P
7440-47-3	Chromium	13.5			P
7440-48-6	Cobalt	6.1	S		P
7440-50-8	Copper	20.4			P
7439-89-2	Iron	10800			P
7439-92-1	Lead	25.9			P
7439-95-1	Magnesium	3200			P
7439-96-5	Manganese	147			P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	8.6	S		P
7440-09-7	Potassium	222	S		P
7782-49-2	Selenium	0.83	U	N	F
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium	129	S		P
7440-28-0	Thallium	0.72	U		F
7440-62-2	Vanadium	17.5			P
7440-66-6	Zinc	121			P
	Cyanide	2.9			CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ321
SED-4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-003-

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ320

Matrix (soil/water): SOIL

Lab Sample ID: 06018-025

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 77.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-5	Aluminum	3150	-	-	-
7440-36-0	Antimony	1.5	U	N	P
7440-38-2	Arsenic	2.1	B	N	P
7440-39-3	Barium	16.5	B	-	P
7440-41-7	Beryllium	0.47	B	-	P
7440-43-0	Cadmium	0.43	U	-	P
7440-70-2	Calcium	20200	-	-	P
7440-47-3	Chromium	19.0	-	-	P
7440-49-4	Cobalt	4.5	B	-	P
7440-50-8	Copper	3.3	-	-	P
7439-89-6	Iron	11200	-	-	P
7439-92-1	Lead	30.0	-	-	P
7439-95-4	Magnesium	8070	-	-	P
7439-96-5	Manganese	190	-	-	P
7439-97-6	Mercury	0.06	U	-	CV
7440-02-0	Nickel	8.3	B	-	P
7440-09-7	Potassium	272	B	-	P
7732-49-2	Selenium	0.77	U	N	P
7440-22-4	Silver	0.97	U	-	P
7440-23-5	Sodium	199	B	-	P
7440-28-0	Thallium	0.63	U	-	P
7440-62-2	Vanadium	15.8	-	-	P
7440-66-6	Zinc	60.9	-	-	P
	Cyanide	0.60	U	-	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES

111.

3

INORGANIC ANALYSIS DATA SHEET

MCJB22
SED-S

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0032

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06018-035

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 50.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7440-00-0	Aluminum	17500			
7440-36-0	Antimony	7.1	U	N	
7440-38-2	Arsenic	9.2		N	
7440-39-3	Barium	132			
7440-41-7	Beryllium	0.31	B		
7440-43-9	Cadmium	0.67	U		
7440-70-2	Calcium	4420			
7440-47-3	Chromium	63.4			
7440-43-4	Cobalt	17.7	B		
7440-30-2	Copper	73.3			
7439-89-6	Iron	32200			
7439-92-1	Lead	233			
7439-95-4	Magnesium	2420			
7439-96-3	Manganese	399			
7439-97-6	Mercury	0.69			CV
7440-02-0	Nickel	52.4			
7440-09-7	Potassium	1140	B		
7782-49-2	Selenium	1.3	B	WN	
7440-22-4	Silver	1.5	B		
7440-23-5	Sodium	208	B		
7440-28-0	Thallium	1.0	U		
7440-62-2	Vanadium	57.7			P
7440-66-6	Zinc	290			P
	Cyanide	0.99	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MCJB23

68-02-0039

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06018-045

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 60.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

Case No.	Analyte	Concentration	C	G	M
7440-30-1	Aluminum	5400			P
7440-34-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	3.3		N	P
7440-39-1	Barium	73.0			P
7440-41-7	Beryllium	0.63	2		P
7440-43-0	Cadmium	0.56	U		P
7440-70-2	Calcium	4910			P
7440-47-3	Chromium	35.4			P
7440-48-4	Cobalt	11.1	8		P
7440-50-6	Copper	42.2			P
7439-92-6	Iron	17100			P
7439-92-1	Lead	121			P
7439-95-4	Magnesium	5720			P
7439-96-5	Manganese	331			P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	22.6			P
7440-09-7	Potassium	1200	5		P
7782-49-2	Selenium	1.0	U	WN	P
7440-22-4	Silver	1.2	U		P
7440-23-3	Sodium	136	5		P
7440-23-0	Thallium	0.83	U		P
7440-62-2	Vanadium	33.0			P
7440-66-6	Zinc	230			P
	Cyanide	0.81	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS

220

AR000232

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJB24.

QED-7

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06013-055

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 73.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3190			P
7440-38-2	Antimony	4.4	U	N	P
7440-38-2	Arsenic	2.2	8	N	P
7440-39-3	Barium	25.2	8		P
7440-41-7	Beryllium	0.15	8		P
7440-43-4	Cadmium	0.42	U		P
7440-70-2	Calcium	6370			P
7440-47-3	Chromium	15.3			P
7440-48-6	Cobalt	7.7	8		P
7440-50-8	Copper	15.8			P
7439-89-6	Iron	10700			P
7439-92-1	Lead	37.1			P
7439-95-4	Magnesium	3350			P
7439-96-3	Manganese	104			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	8.0	8		P
7440-09-7	Potassium	301	8		P
7782-49-2	Selenium	0.73	U	WN	P
7440-22-4	Silver	0.93	U		P
7440-23-5	Sodium	102	8		P
7440-28-0	Thallium	0.64	U		P
7440-62-2	Vanadium	19.1			P
7440-66-6	Zinc	60.4			P
	Cyanide	0.63	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

221

AR000233

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ826

520-9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SOG No.: MCJ820

Matrix (soil/water): SOIL

Lab Sample ID: 06018-065

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 70.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

SAS No.	Analyte	Concentration	C	G	M
7440-00-1	Aluminum	3630			P
7440-00-3	Antimony	1.7	U	N	P
7440-00-2	Arsenic	1.7	3	N	P
7440-00-3	Barium	47.0	3		P
7440-01-7	Beryllium	0.47	3		P
7440-00-3	Cadmium	0.44	U		P
7440-00-2	Calcium	6540			P
7440-00-3	Chromium	16.4			P
7440-00-3	Cobalt	4.4	3		P
7440-00-3	Copper	13.3			P
7439-00-0	Iron	9010			P
7439-00-1	Lead	55.0			P
7439-00-0	Magnesium	3390			P
7439-00-3	Manganese	126			P
7439-00-0	Mercury	0.07	U		CV
7440-00-0	Nickel	9.6	3		P
7440-00-7	Potassium	1310			P
7782-00-2	Selenium	0.87	U	N	P
7440-00-4	Silver	0.99	U		P
7440-00-3	Sodium	96.3	3		P
7440-00-0	Thallium	0.71	U		P
7440-00-2	Vanadium	13.6			P
7440-00-6	Zinc	77.3			P
	Cyanide	0.66	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts:

Comments:

22

AR000234

11/22/93

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

MCJB27

CPC-10

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06018-075

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 79.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-3	Aluminum	1010	-	-	-
7443-35-0	Antimony	4.5	U	N	-
7440-38-2	Arsenic	1.5	B	N	-
7440-39-1	Barium	17.5	B	-	-
7440-41-7	Beryllium	0.32	B	-	-
7440-43-3	Cadmium	0.41	U	-	-
7440-70-2	Calcium	2670	-	-	-
7440-47-3	Chromium	7.0	-	-	-
7440-48-4	Cobalt	1.2	B	-	-
7440-50-3	Copper	8.1	-	-	-
7439-89-6	Iron	4290	-	-	-
7439-92-1	Lead	13.6	-	-	-
7439-95-4	Magnesium	1030	B	-	-
7439-96-5	Manganese	62.4	-	-	-
7439-97-6	Mercury	0.06	U	-	CV
7440-02-0	Nickel	1.8	B	-	-
7440-09-7	Potassium	250	B	-	-
7722-49-2	Selenium	0.77	U	WN	-
7440-22-4	Silver	0.95	U	-	-
7440-23-3	Sodium	78.0	B	-	-
7440-28-0	Thallium	0.63	U	-	-
7440-62-2	Vanadium	4.5	B	-	-
7440-66-6	Zinc	31.6	-	-	-
	Cyanide	0.52	U	-	CA

w/ 7/6/93

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

223

mm 8

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0039

MCJB23
SED-11

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06018-023

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 81.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	U	M
7429-90-3	Aluminum	1230	-	-	P
7440-36-0	Antimony	2.1	U	N	P
7440-38-2	Arsenic	0.99	S	N	P
7440-39-3	Barium	13.5	S	-	P
7440-41-7	Beryllium	0.40	S	-	P
7440-43-9	Cadmium	0.39	U	-	P
7440-70-2	Calcium	2920	-	-	P
7440-47-3	Chromium	24.0	-	-	P
7440-48-4	Cobalt	2.4	S	-	P
7440-50-3	Copper	0.3	-	-	P
7439-89-6	Iron	4710	-	-	P
7439-92-1	Lead	30.1	-	-	P
7439-95-4	Magnesium	1340	-	-	P
7439-96-5	Manganese	140	-	-	P
7439-97-6	Mercury	0.06	U	-	CV
7440-02-0	Nickel	3.0	S	-	P
7440-09-7	Potassium	349	S	-	P
7732-49-2	Selenium	0.77	U	N	P
7440-22-4	Silver	0.86	U	-	P
7440-23-5	Sodium	60.9	S	-	P
7440-28-0	Thallium	0.63	U	-	P
7440-62-2	Vanadium	5.9	S	-	P
7440-66-6	Zinc	34.6	-	-	P
	Cyanide	0.59	U	-	CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

224

1111 9

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MCJEC9
SEC-12

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJEC20

Matrix (soil/water): SOIL

Lab Sample ID: 06013-093

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 79.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-3	Aluminum	11100			
7440-38-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	1.9	B	N	P
7440-39-3	Barium	92.7			P
7440-41-7	Beryllium	1.9			P
7440-43-0	Cadmium	0.41	B		P
7440-70-2	Calcium	70600			P
7440-47-3	Chromium	37.4			P
7440-48-1	Cobalt	7.0	B		P
7440-30-3	Copper	22.3			P
7439-89-6	Iron	6520			P
7439-92-1	Lead	53.2			P
7439-95-4	Magnesium	22600			P
7439-96-5	Manganese	1450			P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	13.2			P
7440-09-7	Potassium	851	B		P
7782-49-2	Selenium	0.80	U	WN	P
7440-22-4	Silver	0.83	U		P
7440-23-3	Sodium	376	B		P
7440-28-0	Thallium	0.65	U		P
7440-62-2	Vanadium	9.7	B		P
7440-66-6	Zinc	250			P
	Cyanide	0.62	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

225

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AR000237

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-D2-0039

MCJB30
SEP '93

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJB20

Matrix (soil/water): SOIL

Lab Sample ID: 06018-105

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 47.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

Lab No.	Analyte	Concentration	C	Q	M
7440-10-3	Aluminum	5000			
7440-30-3	Antimony	7.0	U	N	
7440-33-2	Arsenic	3.3		N	
7440-37-3	Barium	101			
7440-41-7	Beryllium	0.59	S		
7440-43-9	Cadmium	0.70	S		
7440-70-2	Calcium	9430			
7440-47-3	Chromium	73.6			
7440-48-1	Cobalt	13.7	S		
7440-50-8	Copper	65.4			
7439-84-6	Iron	20900			
7439-92-1	Lead	179			
7439-93-4	Magnesium	5070			
7439-96-3	Manganese	511			
7439-97-6	Mercury	0.46			CV
7440-02-0	Nickel	45.2			
7440-09-7	Potassium	1330	S		
7782-49-2	Selenium	1.3	U	WN	
7440-22-4	Silver	1.5	U		
7440-23-5	Sodium	206	S		
7440-25-0	Thallium	1.1	U		
7440-62-2	Vanadium	32.3			P
7440-66-6	Zinc	306			P
	Cyanide	1.0	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS

226

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AR000238

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ331
SC/L-1

Lab Name: SKINNER & SHERMAN LAES.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ320

Matrix (soil/water): SOIL

Lab Sample ID: 06012-115

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 81.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	U
7429-90-3	Aluminum	119000			
7440-36-0	Antimony	15.3		N	
7440-33-2	Arsenic	4.8	S	WN	
7440-39-3	Barium	217			
7440-41-7	Beryllium	0.34	S		
7440-43-9	Cadmium	10.3			
7440-70-3	Calcium	11400			
7440-47-3	Chromium	366			
7440-43-4	Cobalt	16.3			
7440-50-8	Copper	3340			
7439-89-6	Iron	36000			
7439-92-1	Lead	558			
7439-95-4	Magnesium	4340			
7439-96-5	Manganese	928			
7439-97-6	Mercury	1.8			CV
7440-02-0	Nickel	139			
7440-09-7	Potassium	744	S		
7782-49-2	Selenium	4.0	U	N	
7440-22-4	Silver	4.3			
7440-23-3	Sodium	315	S		
7440-28-0	Thallium	0.66	U		
7440-62-2	Vanadium	92.0			P
7440-66-6	Zinc	1340			P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, WOOD

AR000239

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ832

SOIL-2

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

Lab Code: SKINER

Case No.: 22101

SAS No.:

SDG No.: MCJ820

Matrix (soil/water): SOIL

Lab Sample ID: 06013-125

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 37.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3260			
7440-36-2	Antimony	3.3	U	N	P
7440-38-2	Arsenic	50.2		SN	P
7440-39-0	Barium	309			P
7440-41-7	Beryllium	0.44	S		P
7440-43-9	Cadmium	0.36	U		P
7440-70-2	Calcium	10900			P
7440-47-3	Chromium	161			P
7440-48-4	Cobalt	13.9			P
7440-50-8	Copper	3270			P
7439-89-6	Iron	91300			P
7439-92-1	Lead	491			P
7439-95-4	Magnesium	2570			P
7439-96-5	Manganese	1190			P
7439-97-6	Mercury	0.42			CV
7440-02-0	Nickel	121			P
7440-09-7	Potassium	507	S		P
7782-49-2	Selenium	2.9		SN	P
7440-22-4	Silver	6.1			P
7440-23-5	Sodium	147	S		P
7440-28-0	Thallium	0.59	U	W	P
7440-62-2	Vanadium	30.5			P
7440-66-6	Zinc	466			P
	Cyanide	0.55	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

STONES, WOOD

220

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D2-0039

MCJ833
SOIL-3

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ820

Matrix (soil/water): SOIL

Lab Sample ID: 06018-135

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 79.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

Case No.	Analyte	Concentration	C	G	M
7440-00-3	Aluminum	14100			P
7440-35-2	Antimony	32.0	N		P
7440-33-2	Arsenic	34.7	N		P
7440-39-3	Barium	2130			P
7440-41-7	Beryllium	0.32	B		P
7440-43-0	Cadmium	101			P
7440-70-2	Calcium	49700			P
7440-17-3	Chromium	133			P
7440-48-4	Cobalt	33.7			P
7440-50-9	Copper	1240			P
7439-39-9	Iron	46200			P
7439-92-1	Lead	2530			P
7439-25-4	Magnesium	6970			P
7439-96-3	Manganese	2060			P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	112			P
7440-09-7	Potassium	2220			P
7782-49-2	Selenium	10.4	SN		P
7440-22-4	Silver	12.6			P
7440-23-5	Sodium	956	B		P
7440-28-9	Thallium	0.65	U	W	P
7440-62-2	Vanadium	90.4			P
7440-66-6	Zinc	4560			P
	Cyanide	0.59	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:

ROOTS, STONES

229

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCJ834

SOIL-4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 63-02-0039

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ820

Matrix (soil/water): SOIL

Lab Sample ID: 06013-143

Level (low/med): LOW

Date Received: 06/03/93

% Solids:

92.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

Case No.	Analyte	Concentration	U	M
7440-30-3	Aluminum	3610		P
7440-38-2	Antimony	0.7	U	N
7440-38-2	Arsenic	1.3	2	SN
7440-39-3	Barium	25.1	3	P
7440-41-7	Beryllium	0.20	5	P
7440-43-3	Cadmium	0.35	U	P
7440-70-2	Calcium	940	8	P
7440-47-3	Chromium	36.4		P
7440-48-4	Cobalt	3.5	5	P
7440-50-3	Copper	13.1		P
7439-39-6	Iron	5950		P
7439-92-1	Lead	37.0		P
7439-35-4	Magnesium	781	2	P
7439-94-5	Manganese	56.7		P
7439-97-6	Mercury	0.05	2	CV
7440-02-0	Nickel	12.1		P
7440-09-7	Potassium	456	3	P
7722-49-2	Selenium	0.66	U	N
7440-22-4	Silver	0.78	U	P
7440-23-5	Sodium	62.4	3	P
7440-28-0	Thallium	0.54	U	P
7440-62-2	Vanadium	12.6		P
7440-66-6	Zinc	41.9		P
	Cyanide	0.51	U	CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

23

11-15

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

MCJ335
SOIL-5

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ520

Matrix (soil/water): SOIL

Lab Sample ID: 06013-133

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 87.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

Case No.	Analyte	Concentration	C	Q	M
7440-00-5	Aluminum	5080			S
7440-36-0	Antimony	3.3	U	N	S
7440-33-2	Arsenic	3.5		N	F
7440-39-0	Barium	52.1			S
7440-41-7	Beryllium	0.46	B		S
7440-43-0	Cadmium	0.36	U		P
7440-70-2	Calcium	7000		*	P
7440-47-3	Chromium	19.3		*	P
7440-48-4	Cobalt	4.5	B		S
7440-50-3	Copper	22.1			S
7439-89-0	Iron	13100			P
7439-92-1	Lead	73.8			F
7439-95-4	Magnesium	1370			P
7439-96-3	Manganese	213		*	P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	5.5	B		P
7440-09-7	Potassium	410	B		P
7782-49-2	Selenium	0.71	U	WN	F
7440-22-4	Silver	0.81	U		P
7440-23-5	Sodium	102	B		P
7440-28-0	Thallium	0.53	U		F
7440-62-2	Vanadium	40.2			P
7440-66-6	Zinc	73.4			P
	Cyanide	0.54	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

231

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-0039

MCJ236
SOIL

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ220

Matrix (soil/water): SOIL

Lab Sample ID: 06013-155

Level (low/med): LOW

Date Received: 06/03/93

% Solids: 90.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-3	Aluminum	5470			P
7440-36-0	Antimony	3.7	U	N	P
7440-33-2	Arsenic	3.9		N	P
7440-39-3	Barium	74.1			P
7440-41-7	Beryllium	0.43	S		P
7440-43-2	Cadmium	0.35	U		P
7440-70-2	Calcium	7520			P
7440-47-3	Chromium	22.3			P
7440-48-4	Cobalt	5.9	S		P
7440-50-3	Copper	25.8			P
7439-89-3	Iron	12500			P
7439-92-1	Lead	201			P
7439-95-4	Magnesium	2250			P
7439-96-3	Manganese	240			P
7439-97-6	Mercury	0.25			CV
7440-02-0	Nickel	6.1	S		P
7440-09-7	Potassium	424	S		P
7722-49-2	Selenium	0.73	U	WN	P
7440-22-4	Silver	0.78	U		P
7440-23-3	Sodium	91.3	S		P
7440-28-0	Thallium	0.59	U		P
7440-62-2	Vanadium	31.9			P
7440-66-6	Zinc	77.0			P
	Cyanide	0.55	U		CA

Color Before: BROWN

Clarity Before:

Texture: FINE

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

23X

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-02-2039

MCJ543
SOIL 13

Lab Code: SKINER

Case No.: 20101

SAS No.:

SDG No.: MCJ510

Matrix (soil/water): SOIL

Lab Sample ID: 06018-179

Level (low/med): LOW

Date Received: 06/03/93

* Solids: 92.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	G	M
7429-90-5	Aluminum	113000			P
7440-01-2	Antimony	11.3	S	N	P
7440-03-2	Arsenic	2.3	S	LN	P
7440-39-3	Barium	202			P
7440-41-7	Beryllium	0.71	S		P
7440-43-9	Cadmium	9.6			P
7440-70-2	Calcium	11000		*	P
7440-47-3	Chromium	299		*	P
7440-48-6	Cobalt	13.0			P
7440-30-3	Copper	3130			P
7439-90-1	Iron	43700			P
7439-92-1	Lead	332			P
7439-95-4	Magnesium	4060			P
7439-96-3	Manganese	983		*	P
7439-97-6	Mercury	2.5			CV
7440-02-0	Nickel	113			P
7440-09-7	Potassium	725	S		P
7732-49-2	Selenium	3.9	U	N	P
7440-22-4	Silver	4.4			P
7440-23-5	Sodium	264	S		P
7440-23-0	Thallium	0.64	U		P
7440-02-2	Vanadium	82.3			P
7440-66-6	Zinc	1320			P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After:

Artifacts: YES

Comments:
STONES

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SDU

EPA SAMPLE

CKW20

Lab Name: ENVIRSYSTEMS Contract: 68010084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 060833

Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060833X

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: not dec. 34 Date Analyzed: 06/10/93

GC Column: RTX-302.2 ID: 0.330 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	14	1U
74-83-9	Bromomethane	14	1U
75-01-4	Vinyl Chloride	14	1U
75-00-3	Chloroethane	14	1U
75-09-2	Methylene Chloride	10	1U
67-64-1	Acetone	21	1U
75-15-0	Carbon Disulfide	14	1U
75-35-4	1,1-Dichloroethane	14	1U
75-34-3	1,1-Dichloroethane	14	1U
540-59-0	1,2-Dichloroethane (total)	14	1U
67-66-3	Chloroform	14	1U
107-06-2	1,2-Dichloroethane	14	1U
78-93-3	2-Butanone	14	1U
71-55-6	1,1,1-Trichloroethane	14	1U
56-23-3	Carbon Tetrachloride	14	1U
75-27-4	Bromodichloromethane	14	1U
78-87-5	1,2-Dichloropropane	14	1U
10061-01-3	cis-1,3-Dichloropropene	14	1U
79-01-6	Trichloroethane	14	1U
124-43-1	Dibromochloromethane	14	1U
79-00-5	1,1,2-Trichloroethane	14	1U
71-43-2	Benzene	14	1U
10061-02-4	trans-1,3-Dichloropropene	14	1U
75-25-2	Bromoform	14	1U
108-10-1	4-Methyl-2-Pentanone	14	1U
591-78-6	2-Hexanone	14	1U
127-18-4	Tetrachloroethane	14	1U
79-34-5	1,1,2,2-Tetrachloroethane	14	1U
108-88-3	Toluene	14	1U
108-90-7	Chlorobenzene	14	1U
100-41-4	Ethylbenzene	14	1U
100-42-5	Styrene	14	1U
1330-20-7	Xylene (total)	14	1U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW21

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYECase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 060834Sample wt/vol: 5.00 (g/mL) 0Lab File ID: 060834XLevel: (low/med) LOWDate Received: 06/03/93% Moisture: not dec. ISDate Analyzed: 06/10/93GC Column: RTX-502.2 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-27-2	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	19	
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-27-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-46-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
106-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
106-88-3	Toluene	14	U
106-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #

CKW22

Lab Name: ENVIROSYSTEMS Contract: 68D10084

Lab Code: ENVSYS Case No.: 22101 SAS No.: SDG No.: CKW22

Matrix: (soil/water) SOIL Lab Sample ID: 060835

Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060835X

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: not dec. 12 Date Analyzed: 06/10/93

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-57-3	Chloromethane	20	1U
74-93-7	Bromomethane	20	1U
75-01-4	Vinyl Chloride	20	1U
75-00-3	Chloroethane	20	1U
75-09-2	Methylene Chloride	20	1U
67-64-1	Acetone	51	1U
75-15-0	Carbon Disulfide	20	1U
75-35-4	1,1-Dichloroethane	20	1U
75-34-3	1,1-Dichloroethane	20	1U
540-59-0	1,2-Dichloroethane (total)	20	1U
67-66-3	Chloroform	20	1U
107-06-2	1,2-Dichloroethane	20	1U
78-93-3	2-Butanone	11	1U
71-55-6	1,1,1-Trichloroethane	20	1U
56-23-5	Carbon Tetrachloride	20	1U
75-27-4	Bromodichloromethane	20	1U
78-97-5	1,2-Dichloropropane	20	1U
10061-01-5	cis-1,3-Dichloropropene	20	1U
79-01-6	Trichloroethane	20	1U
124-48-1	Dibromochloromethane	20	1U
79-00-5	1,1,2-Trichloroethane	20	1U
71-43-2	Benzene	20	1U
10061-02-6	trans-1,3-Dichloropropene	20	1U
75-25-2	Bromoform	20	1U
108-10-1	4-Methyl-2-Pentanone	20	1U
591-78-6	2-Hexanone	20	1U
127-18-4	Tetrachloroethane	20	1U
79-34-5	1,1,2,2-Tetrachloroethane	20	1U
108-88-3	Toluene	7	1U
108-90-7	Chlorobenzene	20	1U
100-41-4	Ethylbenzene	20	1U
100-42-5	Styrene	20	1U
1330-20-7	Xylene (total)	20	1U

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EPA SAMPLE 1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CKW23

Lab Name: ENVROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101

SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060836

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 060836X

Level: (low/med) LOW

Date Received: 06/02/93

% Moisture: not dec. 45

Date Analyzed: 06/11/93

GC Column: RTX-302.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	11	J
67-64-1	Acetone	26	
75-15-0	Carbon Disulfide	18	U
75-35-4	1,1-Dichloroethene	18	U
75-34-3	1,1-Dichloroethane	18	U
840-59-0	1,2-Dichloroethene (total)	18	U
67-66-3	Chloroform	18	U
107-06-2	1,2-Dichloroethane	18	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	18	U
56-23-5	Carbon Tetrachloride	18	U
75-27-4	Bromodichloromethane	18	U
78-87-5	1,2-Dichloropropane	18	U
10061-01-5	cis-1,3-Dichloropropene	18	U
79-01-6	Trichloroethene	18	U
124-48-1	Dibromochloromethane	18	U
79-00-5	1,1,2-Trichloroethane	18	U
71-43-2	Benzene	18	U
10061-02-6	trans-1,3-Dichloropropene	18	U
75-25-2	Bromoform	18	U
106-10-1	4-Methyl-2-Pentanone	18	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	18	U
79-34-5	1,1,2,2-Tetrachloroethane	18	U
106-88-3	Toluene	18	U
106-90-7	Chlorobenzene	18	U
100-41-4	Ethylbenzene	18	U
100-42-5	Styrene	18	U
1330-20-7	Xylene (total)	18	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW24

Lab Name: ENVIROSYSTEMS Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 060837

Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060837R

Level: (low/med) LOW Date Received: 06/22/93

% Moisture: not dec. 57 Date Analyzed: 06/11/93

GC Column: RTX-502.3 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	14	1U
74-83-9	Bromomethane	14	1U
75-01-4	Vinyl Chloride	14	1U
78-00-3	Chloroethane	14	1U
75-09-2	Methylene Chloride	14	1U
67-64-1	Acetone	17	1
75-15-0	Carbon Disulfide	14	1U
75-35-4	1,1-Dichloroethene	14	1U
75-34-3	1,1-Dichloroethane	14	1U
540-59-0	1,2-Dichloroethane (total)	14	1U
67-66-3	Chloroform	14	1U
107-06-2	1,2-Dichloroethane	14	1U
75-93-3	2-Butanone	14	1B
71-55-5	1,1,1-Trichloroethane	14	1U
56-23-5	Carbon Tetrachloride	14	1U
75-27-4	Bromodichloromethane	14	1U
73-87-5	1,2-Dichloropropane	14	1U
10061-01-5	cis-1,3-Dichloropropene	14	1U
79-01-6	Trichloroethene	14	1U
124-48-1	Dibromochloromethane	14	1U
79-00-5	1,1,2-Trichloroethane	14	1U
71-43-2	Benzene	14	1U
10061-02-6	trans-1,3-Dichloropropene	14	1U
75-25-2	Bromoform	14	1U
108-10-1	4-Methyl-2-Pentanone	14	1U
591-78-6	2-Hexanone	14	1U
127-18-4	Tetrachloroethene	14	1U
79-34-5	1,1,2,2-Tetrachloroethane	14	1U
108-88-3	Toluene	14	1U
105-90-7	Chlorobenzene	14	1U
100-41-4	Ethylbenzene	14	1U
100-42-5	Styrene	14	1U
1330-20-7	Xylene (total)	14	1U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW26

Lab Name: ENVIRCSYSTEMS Contract: 6SD10054
Lab Code: ENVCSYS Case No: 20101 SAS No.: SDG No.: CKW20
Matrix: (soil/water) SOIL Lab Sample ID: 060838
Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060838
Level: (low/med) LOW Date Received: 06/03/93
% Moisture: not dec. 22 Date Analyzed: 06/10/93
GC Column: RTX-302.2 ID: 0.530 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	19	I
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-55-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	8	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-4	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
106-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	71	I
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE :

CKW27

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 50101

SAG No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 060839Sample wt/vol: 5.00 (g/mL) GLab File ID: 060839Level: (low/med) LOWDate Received: 06/03/93% Moisture: not dec. 33Date Analyzed: 06/10/93GC Column: RTX-302.2 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-3	Chloromethane	13	U
74-83-6	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	67	
67-64-1	Acetone	120	
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethane	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethane (total)	13	U
67-64-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	7	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
73-37-5	1,2-Dichloropropane	13	U
10061-01-3	cis-1,3-Dichloropropene	13	U
79-01-4	Trichloroethane	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-38-3	Toluene	1	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW28

Lab Name: ENVIROSYSTEMSContract: 48D10084Lab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060840Sample wt/vol: 5.00 (g/mL) GLab File ID: 060840R ⁰³ ₁₂Level: (low/med) LOWDate Received: 06/02/93% Moisture: not dec. 25Date Analyzed: 06/11/93GC Column: RTX-502.2 ID: 0.530 (mm)Dilution Factor: 1.0Soil Extract Volume: (uL)Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
74-87-3	Chloromethane	13	1U
74-83-9	Bromomethane	13	1U
75-01-4	Vinyl Chloride	13	1U
75-00-3	Chloroethane	13	1U
75-09-2	Methylene Chloride	13	1U
67-64-1	Acetone	14	1U
75-15-0	Carbon Disulfide	13	1U
75-35-4	1,1-Dichloroethene	13	1U
75-34-3	1,1-Dichloroethane	13	1U
540-59-0	1,2-Dichloroethene (total)	13	1U
67-66-3	Chloroform	13	1U
107-06-2	1,2-Dichloroethane	13	1U
78-93-3	2-Butanone	8	1BU
71-55-6	1,1,1-Trichloroethane	13	1U
56-23-5	Carbon Tetrachloride	13	1U
75-27-4	Bromodichloromethane	13	1U
78-67-5	1,2-Dichloropropane	13	1U
10061-01-5	cis-1,3-Dichloropropene	13	1U
79-01-6	Trichloroethene	13	1U
124-48-1	Dibromochloromethane	13	1U
79-00-5	1,1,2-Trichloroethane	13	1U
71-43-2	Benzene	13	1U
10061-02-6	trans-1,3-Dichloropropene	13	1U
75-25-2	Bromoform	13	1U
106-10-1	4-Methyl-2-Pentanone	13	1U
591-78-6	2-Hexanone	13	1U
127-18-4	Tetrachloroethene	13	1U
79-34-5	1,1,2,2-Tetrachloroethane	13	1U
108-88-3	Toluene	13	1U
108-90-7	Chlorobenzene	13	1U
100-41-4	Ethylbenzene	13	1U
100-42-5	Styrene	13	1U
1330-20-7	Xylene (total)	13	1U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CKW29

Lab Name: ENVIROSYSTEMSContract: 63D10024Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060841Sample wt/vol: 5.00 (g/mL) GLab File ID: 060841Level: (low/med) LOWDate Received: 06/02/93% Moisture: not dec. 19Date Analyzed: 06/11/93GC Column: RTX-302.2 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	12	UU
74-83-9	Bromomethane	12	UU
75-01-4	Vinyl Chloride	12	UU
75-00-3	Chloroethane	12	UU
75-09-2	Methylene Chloride	12	UU
67-64-1	Acetone	7	UU
75-15-0	Carbon Disulfide	12	UU
75-35-4	1,1-Dichloroethane	12	UU
75-34-3	1,1-Dichloroethane	12	UU
540-39-0	1,2-Dichloroethane (total)	12	UU
67-66-3	Chloroform	12	UU
107-06-2	1,2-Dichloroethane	12	UU
78-93-3	2-Butanone	12	UU
71-55-6	1,1,1-Trichloroethane	12	UU
56-23-5	Carbon Tetrachloride	12	UU
75-27-4	Bromodichloromethane	12	UU
78-87-5	1,2-Dichloropropene	12	UU
10061-01-5	cis-1,3-Dichloropropene	12	UU
79-01-6	Trichloroethene	12	UU
124-48-1	Dibromochloromethane	12	UU
79-00-5	1,1,2-Trichloroethane	12	UU
71-43-2	Benzene	12	UU
10061-02-6	trans-1,3-Dichloropropene	12	UU
75-25-2	Bromoform	12	UU
108-10-1	4-Methyl-2-Pentanone	12	UU
591-78-6	2-Hexanone	12	UU
127-18-4	Tetrachloroethene	12	UU
79-34-5	1,1,2,2-Tetrachloroethane	12	UU
108-88-3	Toluene	12	UU
108-90-7	Chlorobenzene	12	UU
100-41-4	Ethylbenzene	12	UU
100-42-5	Styrene	12	UU
1330-20-7	Xylene (total)	12	UU

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VOLATILE ORGANICS ANALYSIS DATA SHEETLab Name: ENVIROSYSTEMSContract: 6SD10084

CKW30

Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060842Sample wt/vol: 5.00 (g/mL) 0Lab File ID: 060842-01Level: (low/med) LOWDate Received: 06/02/93% Moisture: not dec. 52Date Analyzed: 06/11/93GC Column: RTX-502.2 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>g</u>
74-27-3	Chloromethane	21	1U
74-83-7	Bromomethane	21	1U
75-01-4	Vinyl Chloride	21	1U
75-00-3	Chloroethane	21	1U
75-09-2	Methylene Chloride	25	1U
67-64-1	Acetone	67	1U
75-15-0	Carbon Disulfide	21	1U
75-35-4	1,1-Dichloroethene	21	1U
75-34-3	1,1-Dichloroethane	21	1U
540-59-0	1,2-Dichloroethene (total)	21	1U
67-66-3	Chloroform	21	1U
107-06-2	1,2-Dichloroethane	21	1U
78-93-3	2-Butanone	16	1U
71-55-6	1,1,1-Trichloroethane	21	1U
56-23-5	Carbon Tetrachloride	21	1U
75-27-4	Bromodichloromethane	21	1U
78-87-5	1,2-Dichloropropane	21	1U
10061-01-5	cis-1,3-Dichloropropene	21	1U
79-01-6	Trichloroethene	21	1U
124-48-1	Dibromochloromethane	21	1U
79-00-5	1,1,2-Trichloroethane	21	1U
71-43-2	Benzene	21	1U
10061-02-6	trans-1,3-Dichloropropene	21	1U
75-25-2	Bromoform	21	1U
108-10-1	4-Methyl-2-Pentanone	21	1U
591-78-6	2-Hexanone	21	1U
127-18-4	Tetrachloroethene	21	1U
79-34-5	1,1,2,2-Tetrachloroethane	21	1U
108-88-3	Toluene	10	1U
108-90-7	Chlorobenzene	21	1U
100-41-4	Ethylbenzene	21	1U
100-42-5	Styrene	21	1U
1330-20-7	Xylene (total)	21	1U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CKW31

Lab Name: ENVIROSYSTEMS Contract: 6SD10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060843

Sample wt/vol: 5.00 (g/mL) 9 Lab File ID: 060843

Level: (low/med) LOW Date Received: 06/02/93

% Moisture: not dec. 19 Date Analyzed: 06/11/93

GC Column: RTX-303.2 ID: 0.330 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	67	
67-64-1	Acetone	14	
75-13-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethane (total)	12	U
67-64-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-3	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethane	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW31RE

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060843

Sample wt/vol: 2.00 (g/mL) 0

Lab File ID: 060843R

Level: (low/med) LOW

Date Received: 06/02/93

% Moisture: not dec. 12

Date Analyzed: 06/11/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	12	IU
74-83-9	Bromomethane	12	IU
75-01-4	Vinyl Chloride	12	IU
75-00-3	Chloroethane	12	IU
75-09-2	Methylene Chloride	39	I
67-64-1	Acetone	12	IU
75-15-0	Carbon Disulfide	12	IU
75-35-4	1,1-Dichloroethene	12	IU
75-34-3	1,1-Dichloroethane	12	IU
540-39-0	1,2-Dichloroethene (total)	12	IU
67-66-3	Chloroform	12	IU
107-06-2	1,2-Dichloroethane	12	IU
78-93-3	2-Butanone	12	IU
71-55-6	1,1,1-Trichloroethane	12	IU
56-23-5	Carbon Tetrachloride	12	IU
75-27-4	Bromodichloromethane	12	IU
78-87-5	1,2-Dichloropropane	12	IU
10061-01-5	cis-1,3-Dichloropropene	12	IU
79-01-6	Trichloroethene	12	IU
124-48-1	Dibromochloromethane	12	IU
79-00-5	1,1,2-Trichloroethane	12	IU
71-43-2	Benzene	12	IU
10061-02-6	trans-1,3-Dichloropropene	12	IU
75-25-2	Bromoform	12	IU
108-10-1	4-Methyl-2-Pentanone	12	IU
591-78-6	2-Hexanone	12	IU
127-18-4	Tetrachloroethene	12	IU
79-34-5	1,1,2,2-Tetrachloroethane	12	IU
108-88-3	Toluene	12	IU
108-90-7	Chlorobenzene	12	IU
100-41-4	Ethylbenzene	12	IU
100-42-5	Styrene	12	IU
1330-20-7	Xylene (total)	12	IU

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

Soil 2

Lab Name: ENVIROSYSTEMS Contract: 68D10034 CKW32

Lab Code: ENVSYE Case No.: 20101 SAS No.: _____ SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060844

Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060844

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: not dec. 12 Date Analyzed: 06/11/93

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>		G
74-87-3	Chloromethane	11	10	
74-83-9	Bromomethane	11	10	
75-01-4	Vinyl Chloride	11	10	
75-00-3	Chloroethane	11	10	
75-09-2	Methylene Chloride	9	10	
67-64-1	Acetone	16		
75-15-0	Carbon Disulfide	11	10	
75-35-4	1,1-Dichloroethane	11	10	
75-34-3	1,1-Dichloroethane	11	10	
540-39-0	1,2-Dichloroethane (total)	11	10	
67-66-3	Chloroform	11	10	
107-06-2	1,2-Dichloroethane	11	10	
73-93-3	2-Butanone	11	10	
71-55-6	1,1,1-Trichloroethane	11	10	
56-23-5	Carbon Tetrachloride	11	10	
75-27-4	Bromodichloromethane	11	10	
73-87-5	1,2-Dichloropropane	11	10	
10061-01-3	cis-1,3-Dichloropropene	11	10	
79-01-6	Trichloroethene	11	10	
124-48-1	Debromochloromethane	11	10	
79-00-5	1,1,2-Trichloroethane	11	10	
71-43-2	Benzene	11	10	
10061-02-6	trans-1,3-Dichloropropene	11	10	
75-25-2	Bromoform	11	10	
108-10-1	4-Methyl-2-Pentanone	11	10	
591-78-6	2-Hexanone	11	10	
127-18-4	Tetrachloroethene	11	10	
79-34-5	1,1,2,2-Tetrachloroethane	11	10	
108-98-3	Toluene	11	10	
108-90-7	Chlorobenzene	11	10	
100-41-4	Ethylbenzene	11	10	
100-42-5	Styrene	11	10	
1330-20-7	Xylene (total)	11	10	

VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 3

EPA SAMPLE

Lab Name: ENVIRCSYSTEMSContract: 6SD10084

CKW33

Lab Code: ENVSYS Case No.: 20101SAS No.: SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060845Sample wt/vol: 5.00 (g/mL) GLab File ID: 060845Level: (low/med) LOWDate Received: 06/08/93% Moisture: not dec. 18Date Analyzed: 06/11/93GC Column: RTX-502.2 ID: 0.530 (mm)Dilution Factor: 1.0Soil Extract Volume: (uL)Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-87-3	Chloromethane	12	1U
74-83-8	Bromomethane	12	1U
75-01-4	Vinyl Chloride	12	1U
75-00-3	Chloroethane	12	1U
75-09-2	Methylene Chloride	19	1
67-64-1	Acetone	19	1
75-15-0	Carbon Disulfide	12	1U
75-35-4	1,1-Dichloroethene	12	1U
75-34-3	1,1-Dichloroethane	12	1U
540-59-0	1,2-Dichloroethene (total)	12	1U
67-66-3	Chloroform	12	1U
107-06-2	1,2-Dichloroethane	12	1U
78-93-3	2-Butanone	12	1U
71-55-6	1,1,1-Trichloroethane	12	1U
56-23-5	Carbon Tetrachloride	12	1U
75-27-4	Bromodichloromethane	12	1U
78-87-5	1,2-Dichloropropane	12	1U
10061-01-5	cis-1,3-Dichloropropene	12	1U
79-01-6	Trichloroethene	12	1U
124-48-1	Dibromochloromethane	12	1U
79-00-5	1,1,2-Trichloroethane	12	1U
71-43-2	Benzene	12	1U
10061-02-6	trans-1,3-Dichloropropene	12	1U
75-25-2	Bromoform	12	1U
106-10-1	4-Methyl-2-Pentanone	12	1U
591-78-6	2-Hexanone	12	1U
127-18-4	Tetrachloroethene	3	1U
79-34-5	1,1,2,2-Tetrachloroethane	12	1U
106-88-3	Toluene	12	1U
106-90-7	Chlorobenzene	12	1U
100-41-4	Ethylbenzene	12	1U
100-42-5	Styrene	12	1U
1330-20-7	Xylene (total)	12	1U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW33RE

Lab Name: ENVIROSYSTEMS Contract: 4SD10094
 Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW30
 Matrix: (soil/water) SDG Lab Sample ID: 93060845
 Sample wt/vol: 1.00 (g/mL) G Lab File ID: 060845R1
 Level: (low/med) LOW Date Received: 06/02/93
 % Moisture: not dec. 19 Date Analyzed: 06/11/93
 GC Column: RTX-302.3 ID: 0.530 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
74-87-3	Chloromethane	12	1U
74-83-9	Bromomethane	12	1U
75-01-4	Vinyl Chloride	12	1U
75-00-3	Chloroethane	12	1U
75-09-2	Methylene Chloride	8	1U
67-64-1	Acetone	12	1U
75-15-0	Carbon Disulfide	12	1U
75-35-4	1,1-Dichloroethane	12	1U
75-34-3	1,1-Dichloroethane	12	1U
540-59-0	1,2-Dichloroethane (total)	12	1U
67-66-3	Chloroform	12	1U
107-06-2	1,2-Dichloroethane	12	1U
78-93-3	2-Butanone	12	1U
71-55-6	1,1,1-Trichloroethane	12	1U
56-23-5	Carbon Tetrachloride	12	1U
75-27-4	Bromodichloromethane	12	1U
78-87-5	1,2-Dichloropropane	12	1U
10061-01-5	cis-1,3-Dichloropropene	12	1U
79-01-6	Trichloroethane	12	1U
124-48-1	Dibromochloromethane	12	1U
79-00-5	1,1,2-Trichloroethane	12	1U
71-43-2	Benzene	12	1U
10061-02-6	trans-1,3-Dichloropropene	12	1U
75-25-2	Bromoform	12	1U
108-10-1	4-Methyl-2-Pentanone	12	1U
591-78-6	2-Hexanone	12	1U
127-18-4	Tetrachloroethane	2	1U
79-34-5	1,1,2,2-Tetrachloroethane	12	1U
108-88-3	Toluene	12	1U
108-90-7	Chlorobenzene	12	1U
100-41-4	Ethylbenzene	12	1U
100-42-5	Styrene	12	1U
1330-20-7	Xylene (total)	12	1U

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Soil 4

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

Lab Name: ENVIRCSYSTEMSContract: 4SD100E4

CKW34

Lab Code: ENVSEYCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix (soil/water): SOILLab Sample ID: 93060846Sample wt/vol: 5.00 (g/mL) 9Lab File ID: 060846/01Level: (low/med) LOWDate Received: 06/05/93% Moisture: not dec. 9Date Analyzed: 06/11/93GC Column: RTX-302.2 ID: 0.530 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
74-37-3	Chloromethane	11	U
74-33-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	63	U
75-13-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethane (total)	11	U
67-65-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	6	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-27-5	1,2-Dichloropropene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
106-98-3	Toluene	11	U
106-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE

CKW33

Lab Name: ENVIROSYSTEMS Contract: 68D10084
 Lab Code: ENVUSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060847
 Sample wt/vol: 3.00 (g/mL) G Lab File ID: 060847
 Level: (low/med) LOW Data Received: 06/27/93
 % Moisture: not dec. 51 Date Analyzed: 06/11/93
 GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethane	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethane (total)	13	U
67-65-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethane	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N
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CKW35RE

Lab Name: ENVIRCSYSTEMS

Contract: 6SD10084

Lab Code: ENVSVS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060847

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 060847R ⁸⁷

Level: (low/med) LOW

Date Received: 06/02/93

% Moisture: not dec. 21

Date Analyzed: 06/11/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>		Q
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	13	U	
67-64-1	Acetone	13	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	13	U	
75-34-3	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
78-93-3	2-Butanone	13	U	
71-55-6	1,1,1-Trichloroethane	13	U	
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-27-5	1,2-Dichloropropane	13	U	
10061-01-5	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
124-48-1	Dibromochloromethane	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
71-43-2	Benzene	13	U	
10061-02-6	trans-1,3-Dichloropropene	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	13	U	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	13	U	
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 8

EPA SAMPLE :

CKW38

Lab Name: ENVIROSYSTEMS Contract: 45010084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW30

Matrix: (soil/water) SOIL Lab Sample ID: 93060861

Sample wt/vol: 5.00 (g/mL) G Lab File ID: 060861R

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: not dec. 22 Date Analyzed: 06/13/93

GC Column: RTX-302.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-87-3	Chloromethane	13	U
74-83-7	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	130	
67-64-1	Acetone	90	B
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethane	13	U
75-34-3	1,1-Dichloroethane	13	U
940-57-0	1,2-Dichloroethane (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	29	B
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropane	13	U
79-01-4	Trichloroethane	13	U
124-43-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropane	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-39-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SOIL 9

EPA SAMPLE

Lab Name: ENVIRCSYSTEMS Contract: 42D10084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93040862
 Sample wt/vol: 9.00 (g/mL) G Lab File ID: 0608428
 Level: (low/med) LOW Date Received: 06/08/93
 % Moisture: not dec. 12 Date Analyzed: 06/13/93
 GC Column: RTX-302.2 ID: 0.330 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
74-87-3	Chloromethane	12	IU
71-83-5	Bromomethane	12	IU
75-01-4	Vinyl Chloride	12	IU
75-00-3	Chloroethane	12	IU
75-09-2	Methylene Chloride	54	I
67-64-1	Acetone	13	IB
75-15-0	Carbon Disulfide	12	IU
75-35-4	1,1-Dichloroethane	12	IU
75-34-3	1,1-Dichloroethane	12	IU
540-59-0	1,2-Dichloroethane (total)	12	IU
67-66-3	Chloroform	12	IU
107-06-2	1,2-Dichloroethane	12	IU
78-93-3	2-Butanone	15	IB
71-55-6	1,1,1-Trichloroethane	12	IU
56-23-5	Carbon Tetrachloride	12	IU
75-27-4	Bromodichloromethane	12	IU
78-67-5	1,2-Dichloropropane	12	IU
10061-01-3	cis-1,3-Dichloropropene	12	IU
79-01-6	Trichloroethene	12	IU
124-48-1	Dibromochloromethane	12	IU
79-00-5	1,1,2-Trichloroethane	12	IU
71-43-2	Benzene	12	IU
10061-02-6	trans-1,3-Dichloropropene	12	IU
75-25-2	Bromoform	12	IU
108-10-1	4-Methyl-2-Pentanone	12	IU
591-78-6	2-Hexanone	12	IU
127-18-4	Tetrachloroethene	12	IU
79-34-5	1,1,2,2-Tetrachloroethane	12	IU
108-88-3	Toluene	12	IU
108-90-7	Chlorobenzene	12	IU
100-41-4	Ethylbenzene	12	IU
100-42-5	Styrene	12	IU
1330-20-7	Xylene (total)	12	IU

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SOIL ID

EPA SAMPLE :

CKW40

SOIL

Lab Name: ENVIROSYSTEMS

Contract: 49D10024

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060863

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 060863R

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: not dec. 15

Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	29	
67-64-1	Acetone	24	B
75-13-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethane (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	24	B
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-97-5	1,2-Dichloropropane	12	U
10061-01-3	cis-1,3-Dichloropropene	12	U
79-01-4	Trichloroethane	12	U
124-43-1	Dibromochloromethane	12	U
79-00-3	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-4	trans-1,3-Dichloropropene	12	U
75-23-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethane	12	U
79-34-3	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #

CKW41

Lab Name: ENVIROSYSTEMS

Contract: 62D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060864

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 060864

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 15

Date Analyzed: 06/12/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1800	IE
67-64-1	Acetone	290	IE
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	21	I
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-3	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW41RF

Lab Name: ENVIROSYSTEMS Contract: 68D10084
 Lab Code: ENVSYS Case No.: 20121 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060864
 Sample wt/vol: 5.00 (g/mL) G Lab File ID: 040864R
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: not dec. 12 Date Analyzed: 06/13/93
 GC Column: RTX-502.3 ID: 0.530 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	<u>Q</u>
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	240	
67-64-1	Acetone	25	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethane	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethane (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
73-93-3	2-Butanone	16	B
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
75-97-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethane	9	U
124-43-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethane	7	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	3	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 13

EPA SAMPLE :

CKW43

Lab Name: ENVIROSYSTEMS

Contract: 6ED10051

Lab Code: ENVSVS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060849

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 060849R

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: not dec. 15

Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-2	Chloromethane	12	U
74-83-8	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	8	J
67-64-1	Acetone	11	BU
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-55-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	27	B
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SED

EPA SAMPLE

CKW18

Lab Name: ENVIROSYSTEMS

Contract: 6SD10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060874

Sample wt/vol: 3.0 (g/mL) G

Lab File ID: 060874

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 40

Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.330 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>		g
74-37-3	Chloromethane	17	1U	
74-33-9	Bromomethane	17	1U	
75-01-4	Vinyl Chloride	17	1U	
75-00-3	Chloroethane	17	1U	
75-09-2	Methylene Chloride	18	1	
67-64-1	Acetone	31	1B	
75-13-6	Carbon Disulfide	4	1U	
75-35-4	1,1-Dichloroethene	17	1U	
75-34-3	1,1-Dichloroethane	17	1U	
540-59-0	1,2-Dichloroethene (total)	17	1U	
67-66-3	Chloroform	17	1U	
107-06-2	1,2-Dichloroethane	17	1U	
78-93-3	2-Butanone	32	1B	
71-55-6	1,1,1-Trichloroethane	17	1U	
56-23-5	Carbon Tetrachloride	17	1U	
75-27-4	Bromodichloromethane	17	1U	
78-37-5	1,2-Dichloropropane	17	1U	
10061-01-5	cis-1,3-Dichloropropene	17	1U	
77-01-6	Trichloroethene	17	1U	
124-48-1	Dibromochloromethane	17	1U	
79-00-5	1,1,2-Trichloroethane	17	1U	
71-43-2	Benzene	17	1U	
10061-02-6	trans-1,3-Dichloropropene	17	1U	
75-25-2	Bromoform	17	1U	
108-10-1	4-Methyl-2-Pentanone	17	1U	
591-78-6	2-Hexanone	17	1U	
127-18-4	Tetrachloroethene	17	1U	
79-34-5	1,1,2,2-Tetrachloroethane	17	1U	
108-88-3	Toluene	7	1U	
108-90-7	Chlorobenzene	3	1U	
100-41-4	Ethylbenzene	17	1U	
100-42-5	Styrene	17	1U	
1330-20-7	Xylene (total)	17	1U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CKW18RE

Lab Name: ENVIROSYSTEMS

Contract: 6ED10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060874

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 060874R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 40

Date Analyzed: 06/14/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
73-09-2	Methylene Chloride	16	U
67-64-1	Acetone	98	B
73-15-0	Carbon Disulfide	17	U
75-35-4	1,1-Dichloroethane	17	U
75-34-3	1,1-Dichloroethane	17	U
540-59-0	1,2-Dichloroethane (total)	17	U
67-66-3	Chloroform	17	U
107-06-2	1,2-Dichloroethane	17	U
75-93-3	2-Butanone	45	B
71-55-6	1,1,1-Trichloroethane	17	U
56-23-5	Carbon Tetrachloride	17	U
75-27-4	Bromodichloromethane	17	U
78-67-5	1,2-Dichloropropane	17	U
10061-01-5	cis-1,3-Dichloropropene	17	U
79-01-6	Trichloroethene	17	U
124-48-1	Dibromochloromethane	17	U
79-00-5	1,1,2-Trichloroethane	17	U
71-43-2	Benzene	17	U
10061-02-4	trans-1,3-Dichloropropene	17	U
75-25-2	Bromoform	17	U
105-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
105-88-3	Toluene	9	U
105-90-7	Chlorobenzene	19	U
100-41-4	Ethylbenzene	17	U
100-42-5	Styrene	17	U
1330-20-7	Xylene (total)	17	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET.

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW19

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060873

Sample wt/vol: 5.0 (g/mL) 9 Lab File ID: 060873

Level: (low/med) LOW Date Received: 06/04/93

% Moisture: not dec. 46 Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>		G
74-37-3	Chloromethane	19	IU	
74-33-7	Bromomethane	19	IU	
75-01-4	Vinyl Chloride	19	IU	
75-00-2	Chloroethane	19	IU	
75-09-2	Methylene Chloride	19	IU	
67-64-1	Acetone	63	IB	
75-15-0	Carbon Disulfide	19	IU	
75-35-4	1,1-Dichloroethane	19	IU	
75-34-3	1,1-Dichloroethane	19	IU	
540-59-0	1,2-Dichloroethane (total)	19	IU	
67-66-3	Chloroform	19	IU	
107-06-2	1,2-Dichloroethane	19	IU	
78-93-3	2-Butanone	41	IB	
71-55-6	1,1,1-Trichloroethane	19	IU	
56-23-5	Carbon Tetrachloride	19	IU	
75-27-4	Bromodichloromethane	19	IU	
78-37-5	1,2-Dichloropropane	19	IU	
10061-01-5	cis-1,3-Dichloropropene	19	IU	
79-01-6	Trichloroethane	19	IU	
124-48-1	Dibromochloromethane	19	IU	
79-00-5	1,1,2-Trichloroethane	19	IU	
71-43-2	Benzene	19	IU	
10061-02-6	trans-1,3-Dichloropropene	19	IU	
75-25-2	Bromoform	19	IU	
108-10-1	4-Methyl-2-Pentanone	19	IU	
591-78-6	2-Hexanone	19	IU	
127-18-4	Tetrachloroethane	19	IU	
79-34-5	1,1,2,2-Tetrachloroethane	19	IU	
108-58-3	Toluene	5	IJ	
108-90-7	Chlorobenzene	19	IU	
100-41-4	Ethylbenzene	19	IU	
100-42-5	Styrene	19	IU	
1330-20-7	Xylene (total)	19	IU	

INSTRUMENT

FORM I VOA

AR000272

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS

Contract: 65D10084

CKW19RE

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW34

Matrix: (soil/water) SOIL

Lab Sample ID: 93060875

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 061875Z

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 44

Date Analyzed: 06/17/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPCUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG . G

74-87-3	-----Chloromethane	19	IU
74-83-7	-----Bromomethane	19	IU
75-01-4	-----Vinyl Chloride	19	IU
75-00-3	-----Chloroethane	19	IU
75-09-2	-----Methylene Chloride	19	IU
67-64-1	-----Acetone	19	IU
75-13-0	-----Carbon Disulfide	19	IU
75-35-4	-----1,1-Dichloroethane	19	IU
75-34-3	-----1,1-Dichloroethane	19	IU
540-59-0	-----1,2-Dichloroethane (total)	19	IU
67-66-3	-----Chloroform	19	IU
107-06-2	-----1,2-Dichloroethane	19	IU
76-93-3	-----2-Butanone	19	IU
71-55-6	-----1,1,1-Trichloroethane	19	IU
56-23-5	-----Carbon Tetrachloride	19	IU
75-27-4	-----Bromodichloromethane	19	IU
78-87-5	-----1,2-Dichloropropane	19	IU
10061-01-5	-----cis-1,3-Dichloropropene	19	IU
79-01-6	-----Trichloroethane	19	IU
124-48-1	-----Dibromochloromethane	19	IU
79-00-5	-----1,1,2-Trichloroethane	19	IU
71-43-2	-----Benzene	19	IU
10061-02-6	-----trans-1,3-Dichloropropene	19	IU
75-25-2	-----Bromoform	19	IU
108-10-1	-----4-Methyl-2-Pentanone	19	IU
591-78-6	-----2-Hexanone	19	IU
127-18-4	-----Tetrachloroethene	19	IU
79-34-5	-----1,1,2,2-Tetrachloroethane	19	IU
108-88-3	-----Toluene	21	I
108-90-7	-----Chlorobenzene	19	IU
100-41-4	-----Ethylbenzene	19	IU
100-42-5	-----Styrene	19	IU
1330-20-7	-----Xylene (total)	19	IU

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW25

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060876

Sample wt/vol: 5.0 (g/mL) 0 Lab File ID: 060876

Level: (low/med) LOW Date Received: 06/04/93

% Moisture: not dec. 11 Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.532 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-87-3	Chloromethane	11	1U
74-83-9	Bromomethane	11	1U
75-01-4	Vinyl Chloride	11	1U
75-00-3	Chloroethane	11	1U
75-09-2	Methylene Chloride	11	1U
67-64-1	Acetone	11	1U
75-15-0	Carbon Disulfide	11	1U
75-35-4	1,1-Dichloroethane	11	1U
75-34-3	1,1-Dichloroethane	11	1U
540-57-0	1,2-Dichloroethane (total)	11	1U
67-66-3	Chloroform	11	1U
107-06-2	1,2-Dichloroethane	11	1U
78-93-3	2-Butanone	14	18
71-55-6	1,1,1-Trichloroethane	11	1U
56-23-5	Carbon Tetrachloride	11	1U
75-27-4	Bromodichloromethane	11	1U
78-87-5	1,2-Dichloropropane	11	1U
10061-01-5	cis-1,3-Dichloropropene	11	1U
79-01-6	Trichloroethane	11	1U
124-48-1	Di-bromochloromethane	11	1U
79-00-5	1,1,2-Trichloroethane	11	1U
71-43-2	Benzene	11	1U
10061-02-6	trans-1,3-Dichloropropene	11	1U
75-25-2	Bromoform	11	1U
108-10-1	4-Methyl-2-Pentanone	11	1U
591-78-6	2-Hexanone	11	1U
127-18-4	Tetrachloroethane	11	1U
79-34-5	1,1,2,2-Tetrachloroethane	11	1U
108-88-3	Toluene	11	1U
108-90-7	Chlorobenzene	11	1U
100-41-4	Ethylbenzene	11	1U
100-42-5	Styrene	11	1U
1330-20-7	Xylene (total)	11	1U

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FORM 1 VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS

Contract: 6EP10084

CKW36

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060848

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 060848

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: not dec. 10

Date Analyzed: 06/11/93

GC Column: RTX-302.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-3	Chloromethane	11	1U
74-83-9	Bromomethane	11	1U
75-01-4	Vinyl Chloride	11	1U
75-00-3	Chloroethane	11	1U
75-09-2	Methylene Chloride	11	1U
67-64-1	Acetone	11	1U
75-15-0	Carbon Disulfide	11	1U
75-35-4	1,1-Dichloroethene	11	1U
75-34-3	1,1-Dichloroethane	11	1U
540-39-0	1,2-Dichloroethene (total)	11	1U
67-66-3	Chloroform	11	1U
107-06-2	1,2-Dichloroethane	11	1U
78-93-3	2-Butanone	11	1U
71-55-6	1,1,1-Trichloroethane	11	1U
56-23-5	Carbon Tetrachloride	11	1U
75-27-4	Bromodichloromethane	11	1U
78-87-5	1,2-Dichloropropane	11	1U
10061-01-5	cis-1,3-Dichloropropene	11	1U
79-01-6	Trichloroethene	11	1U
124-48-1	Dibromochloromethane	11	1U
79-00-5	1,1,2-Trichloroethane	11	1U
71-43-2	Benzene	11	1U
10061-02-6	trans-1,3-Dichloropropene	11	1U
75-25-2	Bromoform	11	1U
108-10-1	4-Methyl-2-Pentanone	11	1U
591-78-6	2-Hexanone	11	1U
127-18-4	Tetrachloroethene	11	1U
79-34-5	1,1,2,2-Tetrachloroethane	11	1U
108-88-3	Toluene	11	1U
108-90-7	Chlorobenzene	11	1U
100-41-4	Ethylbenzene	11	1U
100-42-5	Styrene	11	1U
1330-20-7	Xylene (total)	11	1U

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

Lab Name: ENVIROSYSTEMSContract: 63D10084

CKW37

SD1-7

Lab Code: ENVSYS Case No.: 20101

SAS No.: _____

SDG No.: CKW3Matrix: (soil/water) SOILLab Sample ID: 93060877Sample wt/vol: 5.0 (g/mL) GLab File ID: 060877Level: (low/med) LOWDate Received: 06/04/93% Moisture: not dec. 18Date Analyzed: 06/13/93GC Column: RTX-502.2 ID: 0.330 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-87-3	Chloromethane	12	IU
74-83-9	Bromomethane	12	IU
75-01-4	Vinyl Chloride	12	IU
75-00-3	Chloroethane	12	IU
75-09-2	Methylene Chloride	190	I
67-64-1	Acetone	1500	BE
75-15-0	Carbon Disulfide	18	I
75-35-4	1,1-Dichloroethane	12	IU
75-34-3	1,1-Dichloroethane	12	IU
540-59-0	1,2-Dichloroethane (total)	12	IU
67-66-3	Chloroform	12	IU
107-06-2	1,2-Dichloroethane	12	IU
78-93-3	2-Butanone	210	IB
71-55-6	1,1,1-Trichloroethane	12	IU
56-23-5	Carbon Tetrachloride	12	IU
75-27-4	Bromodichloromethane	12	IU
78-87-5	1,2-Dichloropropane	12	IU
10061-01-5	cis-1,3-Dichloropropene	12	IU
79-01-6	Trichloroethane	12	IU
124-48-1	Dibromochloromethane	12	IU
79-00-5	1,1,2-Trichloroethane	12	IU
71-43-2	Benzene	12	IU
10061-02-6	trans-1,3-Dichloropropene	12	IU
75-25-2	Bromoform	12	IU
108-10-1	4-Methyl-2-Pentanone	12	IU
591-78-6	2-Hexanone	12	IU
127-18-4	Tetrachloroethane	12	IU
79-34-5	1,1,2,2-Tetrachloroethane	12	IU
108-88-3	Toluene	37	I
108-90-7	Chlorobenzene	11	IJ
100-41-4	Ethylbenzene	6	IJ
100-42-5	Styrene	12	IU
1330-20-7	Xylene (total)	32	IX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CKW37DL

Lab Name: ENVIROSYSTEMS

Contract: 6SD100E4

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060877

Sample wt/vol: 1.0 (g/mL) G

Lab File ID: 060877D

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 15

Date Analyzed: 06/29/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
74-87-3	Chloromethane	61	U
74-83-7	Bromomethane	61	U
75-01-4	Vinyl Chloride	61	U
75-00-3	Chloroethane	61	U
75-09-2	Methylene Chloride	76	ID
67-64-1	Acetone	120	ID
75-15-0	Carbon Disulfide	28	IDJ
75-35-4	1,1-Dichloroethene	61	U
75-34-3	1,1-Dichloroethane	61	U
340-39-0	1,2-Dichloroethene (total)	61	U
67-66-3	Chloroform	61	U
107-06-2	1,2-Dichloroethane	61	U
78-93-3	2-Butanone	61	U
71-55-6	1,1,1-Trichloroethane	61	U
56-23-5	Carbon Tetrachloride	61	U
75-27-4	Bromodichloromethane	61	U
78-87-5	1,2-Dichloropropane	61	U
10061-01-5	cis-1,3-Dichloropropene	61	U
79-01-6	Trichloroethene	61	U
124-48-1	Dibromochloromethane	61	U
79-00-5	1,1,2-Trichloroethane	61	U
71-43-2	Benzene	61	U
10061-02-6	trans-1,3-Dichloropropene	61	U
75-25-2	Bromoform	61	U
108-10-1	4-Methyl-2-Pentanone	61	U
591-78-6	2-Hexanone	61	U
127-18-4	Tetrachloroethene	61	U
79-34-5	1,1,2,2-Tetrachloroethane	61	U
108-88-3	Toluene	61	U
108-90-7	Chlorobenzene	11	IDJ
100-41-4	Ethylbenzene	61	U
100-42-5	Styrene	61	U
1330-20-7	Xylene (total)	29	IDJX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 12 EPA SAMPLE N

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW42

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060865

Sample wt/vol: 5.0 (g/mL) 9 Lab File ID: 060865

Level: (low/med) LOW Date Received: 06/04/93

% Moisture: not dec. 16 Date Analyzed: 06/12/93

GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	12	IU
74-83-9	Bromomethane	12	IU
75-01-4	Vinyl Chloride	12	IU
75-00-3	Chloroethane	12	IU
75-09-2	Methylene Chloride	25	I
67-64-1	Acetone	48	I
75-15-0	Carbon Disulfide	12	IU
75-35-4	1,1-Dichloroethane	12	IU
75-34-3	1,1-Dichloroethane	12	IU
540-39-0	1,2-Dichloroethane (total)	12	IU
67-66-3	Chloroform	12	IU
107-06-2	1,2-Dichloroethane	12	IU
78-93-3	2-Butanone	10	IJ
71-55-6	1,1,1-Trichloroethane	12	IU
56-23-5	Carbon Tetrachloride	12	IU
75-27-4	Bromodichloromethane	12	IU
78-87-5	1,2-Dichloropropane	12	IU
10061-01-5	cis-1,3-Dichloropropene	12	IU
79-01-6	Trichloroethane	12	IU
124-48-1	Dibromochloromethane	12	IU
79-00-5	1,1,2-Trichloroethane	12	IU
71-43-2	Benzene	12	IU
10061-02-6	trans-1,3-Dichloropropene	12	IU
75-25-2	Bromoform	12	IU
108-10-1	4-Methyl-2-Pentanone	12	IU
591-78-6	2-Hexanone	12	IU
127-18-4	Tetrachloroethene	12	IU
79-34-5	1,1,2,2-Tetrachloroethane	12	IU
108-88-3	Toluene	12	IU
108-90-7	Chlorobenzene	12	IU
100-41-4	Ethylbenzene	12	IU
100-42-5	Styrene	12	IU
1330-20-7	Xylene (total)	12	IU

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW42RE

Lab Name: ENVIROSYSTEMS Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060865

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 060865R

Level: (low/med) LOW Date Received: 06/04/93

% Moisture: not dec. 16 Date Analyzed: 06/13/93

GC Column: RTX-302.2 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) <u>UG/KG</u>	<u>G</u>
74-87-3	Chloromethane	12	1U
74-83-9	Bromomethane	12	1U
75-01-4	Vinyl Chloride	12	1U
75-00-3	Chloroethane	12	1U
75-09-2	Methylene Chloride	12	1U
67-64-1	Acetone	45	1B
75-15-0	Carbon Disulfide	12	1U
75-35-4	1,1-Dichloroethene	12	1U
75-34-3	1,1-Dichloroethane	12	1U
540-59-0	1,2-Dichloroethene (total)	12	1U
67-66-3	Chloroform	12	1U
107-06-2	1,2-Dichloroethane	12	1U
75-93-3	2-Butanone	14	1B
71-55-6	1,1,1-Trichloroethane	12	1U
56-23-5	Carbon Tetrachloride	12	1U
75-27-4	Bromodichloromethane	12	1U
78-87-5	1,2-Dichloropropane	12	1U
10061-01-5	cis-1,3-Dichloropropene	12	1U
79-01-6	Trichloroethene	12	1U
124-48-1	Dibromochloromethane	12	1U
79-00-5	1,1,2-Trichloroethane	12	1U
71-43-2	Benzene	12	1U
10061-02-6	trans-1,3-Dichloropropene	12	1U
75-25-2	Bromoform	12	1U
106-10-1	4-Methyl-2-Pentanone	12	1U
591-78-6	2-Hexanone	12	1U
127-18-4	Tetrachloroethene	12	1U
79-34-5	1,1,2,2-Tetrachloroethane	12	1U
108-88-3	Toluene	12	1U
108-90-7	Chlorobenzene	12	1U
100-41-4	Ethylbenzene	12	1U
100-42-5	Styrene	12	1U
1330-20-7	Xylene (total)	12	1U

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FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE 1

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW60

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060868

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: 060866

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 39

Date Analyzed: 06/12/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG g

74-87-3	Chloromethane	15	1U
74-83-9	Bromomethane	15	1U
75-01-4	Vinyl Chloride	15	1U
75-00-3	Chloroethane	15	1U
75-09-2	Methylene Chloride	11	1U
67-64-1	Acetone	33	1U
75-13-0	Carbon Disulfide	15	1U
75-35-4	1,1-Dichloroethane	15	1U
75-34-3	1,1-Dichloroethane	15	1U
540-59-0	1,2-Dichloroethane (total)	15	1U
67-66-3	Chloroform	15	1U
107-06-2	1,2-Dichloroethane	15	1U
78-93-3	2-Butanone	15	1U
71-55-6	1,1,1-Trichloroethane	15	1U
56-23-5	Carbon Tetrachloride	15	1U
75-27-4	Bromodichloromethane	15	1U
78-87-5	1,2-Dichloropropane	15	1U
10061-01-5	cis-1,3-Dichloropropane	15	1U
79-01-6	Trichloroethane	15	1U
124-48-1	Dibromochloromethane	15	1U
79-00-5	1,1,2-Trichloroethane	15	1U
71-43-2	Benzene	15	1U
10061-02-6	trans-1,3-Dichloropropene	15	1U
75-25-2	Bromoform	15	1U
108-10-1	4-Methyl-2-Pentanone	15	1U
591-78-6	2-Hexanone	15	1U
127-18-4	Tetrachloroethane	15	1U
79-34-5	1,1,2,2-Tetrachloroethane	15	1U
108-88-3	Toluene	15	1U
108-90-7	Chlorobenzene	15	1U
100-41-4	Ethylbenzene	15	1U
100-42-5	Styrene	15	1U
1330-20-7	Xylene (total)	15	1U

ENVIROSYSTEMS

FORM 1 VOA

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220

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS

Contract: 6SD10084

CKW60RE

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060866

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 060866R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 39

Date Analyzed: 06/14/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

74-87-3	Chloromethane	16	IU
74-83-9	Bromomethane	16	IU
75-01-4	Vinyl Chloride	16	IU
75-00-3	Chloroethane	16	IU
75-09-2	Methylene Chloride	25	I
67-64-1	Acetone	16	IU
75-13-0	Carbon Disulfide	16	IU
75-35-4	1,1-Dichloroethane	16	IU
75-34-3	1,1-Dichloroethane	16	IU
540-59-0	1,2-Dichloroethane (total)	16	IU
67-66-3	Chloroform	16	IU
107-06-2	1,2-Dichloroethane	16	IU
78-93-3	2-Butanone	16	IU
71-55-6	1,1,1-Trichloroethane	16	IU
56-23-5	Carbon Tetrachloride	16	IU
75-27-4	Bromodichloromethane	16	IU
78-87-5	1,2-Dichloropropane	16	IU
10061-01-5	cis-1,3-Dichloropropene	16	IU
79-01-6	Trichloroethene	16	IU
124-48-1	Dibromochloromethane	16	IU
79-00-5	1,1,2-Trichloroethane	16	IU
71-43-2	Benzene	16	IU
10061-02-6	trans-1,3-Dichloropropene	16	IU
75-25-2	Bromoform	16	IU
108-10-1	4-Methyl-2-Pentanone	16	IU
591-78-6	2-Hexanone	16	IU
127-18-4	Tetrachloroethene	16	IU
79-34-5	1,1,2,2-Tetrachloroethane	16	IU
108-88-3	Toluene	16	IU
108-90-7	Chlorobenzene	16	IU
100-41-4	Ethylbenzene	16	IU
100-42-5	Styrene	16	IU
1330-20-7	Xylene (total)	16	IU

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FORM 1 VDA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 13 EPA SAMPLE A

Lab Name: ENVIROSYSTEMS Contract: 69D10084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW34
 Matrix: (soil/water) SOIL Lab Sample ID: 93060867
 Sample wt/vol: 5.0 (g/mL) Q Lab File ID: 060867
 Level: (low/med) LOW Date Received: 06/04/93
 % Moisture: not dec. 35 Date Analyzed: 06/12/93
 GC Column: RTX-502.2 ID: 0.530 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	13	IU
72-93-7	Bromomethane	13	IU
75-01-4	Vinyl Chloride	13	IU
75-00-3	Chloroethane	13	IU
75-09-2	Methylene Chloride	370	IE
67-64-1	Acetone	82	I
75-15-0	Carbon Disulfide	13	IU
75-35-4	1,1-Dichloroethane	13	IU
75-34-3	1,1-Dichloroethane	13	IU
540-59-0	1,2-Dichloroethane (total)	13	IU
67-66-3	Chloroform	13	IU
107-06-2	1,2-Dichloroethane	13	IU
78-93-3	2-Butanone	16	I
71-55-6	1,1,1-Trichloroethane	13	IU
56-23-5	Carbon Tetrachloride	13	IU
75-27-4	Bromodichloromethane	13	IU
78-97-5	1,2-Dichloropropane	13	IU
10061-01-5	cis-1,3-Dichloropropene	13	IU
79-01-6	Trichloroethane	13	IU
124-48-1	Dibromochloromethane	13	IU
79-00-5	1,1,2-Trichloroethane	13	IU
71-43-2	Benzene	13	IU
10061-02-4	trans-1,3-Dichloropropene	13	IU
75-23-2	Bromoform	13	IU
108-10-1	4-Methyl-2-Pentanone	13	IU
591-78-6	2-Hexanone	13	IU
127-18-4	Tetrachloroethene	13	IU
79-34-5	1,1,2,2-Tetrachloroethane	13	IU
108-88-3	Toluene	13	IU
108-90-7	Chlorobenzene	13	IU
100-41-4	Ethylbenzene	13	IU
100-42-5	Styrene	13	IU
1330-20-7	Xylene (total)	13	IU

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW61RE

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060867

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 060867R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 25

Date Analyzed: 06/13/93

GC Column: RTX-502.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG G

74-27-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	48	I
67-64-1	Acetone	35	IB
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	26	IB
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
75-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
106-68-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

FORM I VOA

AR000283

3/90
256

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 16

EPA SAMPLE N

CKW62

Lab Name: ENVIROSYSTEMS

Contract: 68010084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060878

Sample wt/vol: 5.0 (g/mL) Q

Lab File ID: 060868

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 62

Date Analyzed: 06/13/93

GC Column: RTX-302.2 ID: 0.330 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
74-87-3	Chloromethane	26	1U
74-83-9	Bromomethane	26	1U
75-01-4	Vinyl Chloride	26	1U
75-00-3	Chloroethane	26	1U
75-09-2	Methylene Chloride	26	1U
67-64-1	Acetone	29	1B
75-15-0	Carbon Disulfide	26	1U
75-35-4	1,1-Dichloroethane	26	1U
75-34-3	1,1-Dichloroethane	26	1U
540-59-0	1,2-Dichloroethane (total)	26	1U
67-65-3	Chloroform	26	1U
107-06-2	1,2-Dichloroethane	26	1U
78-93-3	2-Butanone	26	1U
71-55-6	1,1,1-Trichloroethane	26	1U
56-23-5	Carbon Tetrachloride	26	1U
75-27-4	Bromodichloromethane	26	1U
75-37-5	1,2-Dichloropropane	26	1U
10061-01-5	cis-1,3-Dichloropropene	26	1U
79-01-6	Trichloroethane	26	1U
124-48-1	Dibromochloromethane	26	1U
79-00-5	1,1,2-Trichloroethane	26	1U
71-43-2	Benzene	26	1U
10061-02-6	trans-1,3-Dichloropropene	26	1U
75-25-2	Bromoform	26	1U
108-10-1	4-Methyl-2-Pentanone	26	1U
591-78-6	2-Hexanone	26	1U
127-18-4	Tetrachloroethane	26	1U
79-34-5	1,1,2,2-Tetrachloroethane	26	1U
108-88-3	Toluene	8	1U
108-90-7	Chlorobenzene	26	1U
100-41-4	Ethylbenzene	26	1U
100-42-5	Styrene	26	1U
1330-20-7	Xylene (total)	26	1U

427
272

8850000A

FORM 1 VOA

AR000284

3/90

071

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW62RE

Lab Name: ENVIROSYSTEMS

Contract: 6ED10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060868

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: 0608687

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: not dec. 42

Date Analyzed: 06/17/93

GC Column: RTX-302.2 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		G
74-87-3	Chloromethane	26	1U
74-83-9	Bromomethane	26	1U
75-01-4	Vinyl Chloride	26	1U
75-00-3	Chloroethane	26	1U
75-09-2	Methylene Chloride	26	1U
67-64-1	Acetone	43	1B
75-15-0	Carbon Disulfide	26	1U
75-35-4	1,1-Dichloroethane	26	1U
75-34-3	1,1-Dichloroethane	26	1U
540-59-0	1,2-Dichloroethane (total)	26	1U
67-66-3	Chloroform	26	1U
107-06-2	1,2-Dichloroethane	26	1U
78-93-3	2-Butanone	26	1U
71-35-6	1,1,1-Trichloroethane	26	1U
56-23-5	Carbon Tetrachloride	26	1U
75-27-4	Bromodichloromethane	26	1U
78-87-5	1,2-Dichloropropane	26	1U
10061-01-5	cis-1,3-Dichloropropene	26	1U
79-01-6	Trichloroethane	26	1U
124-48-1	Dibromochloromethane	26	1U
79-00-5	1,1,2-Trichloroethane	26	1U
71-43-2	Benzene	26	1U
10061-02-6	trans-1,3-Dichloropropene	26	1U
75-25-2	Bromoform	26	1U
108-10-1	4-Methyl-2-Pentanone	26	1U
591-78-6	2-Hexanone	26	1U
127-18-4	Tetrachloroethene	26	1U
79-34-5	1,1,2,2-Tetrachloroethane	26	1U
108-88-3	Toluene	26	1U
108-90-7	Chlorobenzene	26	1U
100-41-4	Ethylbenzene	26	1U
100-42-5	Styrene	26	1U
1330-20-7	Xylene (total)	26	1U

431
2512

285-0008

FORM I VOA

AR000285

2659

13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW20

Lab Name: ENVIROSYSTEMS Contract: 68010084
 Lab Code: ENVSYG Case No.: 20101 SAS No.: _____ SDG No.: CKW20
 Matrix: (soil/water) SCIL Lab Sample ID: 93060833
 Sample wt/vol: 30.0 (g/mL) 0 Lab File ID: 9060833
 Level: (low/med) LCW Date Received: 06/03/93
 % Moisture: 26 decanted: (Y/N) N Date Extracted: 06/22/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/28/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
108-95-2	Phenol	450	IU
111-44-4	bis(2-Chloroethyl)Ether	450	IU
95-57-8	2-Chlorophenol	450	IU
341-73-1	1,3-Dichlorobenzene	450	IU
106-46-7	1,4-Dichlorobenzene	450	IU
95-50-1	1,2-Dichlorobenzene	450	IU
95-48-7	2-Methylphenol	450	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	450	IU
106-44-5	4-Methylphenol	450	IU
621-64-7	N-Nitroso-Di-n-Propylamine	450	IU
67-72-1	Hexachloroethane	450	IU
98-95-3	Nitrobenzene	450	IU
78-59-1	Isophorone	450	IU
88-75-5	2-Nitrophenol	450	IU
105-67-9	2,4-Dimethylphenol	450	IU
111-91-1	bis(2-Chloroethoxy)Methane	450	IU
120-83-2	2,4-Dichlorophenol	450	IU
120-82-1	1,2,4-Trichlorobenzene	450	IU
91-20-3	Naphthalene	450	IU
106-47-8	4-Chloroaniline	450	IU
87-68-3	Hexachlorobutadiene	450	IU
59-50-7	4-Chloro-3-Methylphenol	450	IU
91-57-6	2-Methylnaphthalene	450	IU
77-47-4	Hexachlorocyclopentadiene	450	IU
88-06-2	2,4,6-Trichlorophenol	450	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-58-7	2-Chloronaphthalene	450	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	450	IU
208-96-8	Acenaphthylene	450	IU
606-20-2	2,6-Dinitrotoluene	450	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	450	IU

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FORM I SV-1

AR000286

0501

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW20

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060833

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: 5060833

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 26 decanted: (Y/N) N

Date Extracted: 06/22/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/28/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	450	IU
121-14-2	2,4-Dinitrotoluene	450	IU
84-66-2	Diethylphthalate	450	IU
7005-72-3	4-Chlorophenyl-phenylether	450	IU
86-73-7	Fluorene	450	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	450	IU
101-55-3	4-Bromophenyl-phenylether	450	IU
118-74-1	Hexachlorobenzene	450	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	300	IJ
120-12-7	Anthracene	450	IU
86-74-8	Carbazole	450	IU
84-74-2	Di-n-Butylphthalate	450	IU
206-44-0	Fluoranthene	700	I
129-00-0	Pyrene	270	IJ
85-68-7	Butylbenzylphthalate	450	IU
91-94-1	3,3'-Dichlorobenzidine	450	IU
56-55-3	Benzo(a)Anthracene	210	IJ
218-01-9	Chrysene	250	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	370	IJ
117-84-0	Di-n-Octyl Phthalate	450	IU
205-99-2	Benzo(b)Fluoranthene	580	I
207-08-9	Benzo(k)Fluoranthene	450	IU
50-32-8	Benzo(a)Pyrene	450	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	450	IU
53-70-3	Dibenz(a,h)Anthracene	450	IU
191-24-2	Benzo(g,h,i)Perylene	450	IU

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW21
Lab Code: ENVSYS Case No.: 20101 SAS No.: SED-4
Matrix: (soil/water) SOIL Lab Sample ID: 93060834
Sample wt/vol: 30.0 (g/mL) Q Lab File ID: 9060834R
Level: (low/med) LOW Date Received: 06/03/93
% Moisture: 29 decanted: (Y/N) N Date Extracted: 06/29/93
Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 07/02/93
Injection Volume: 2.0(uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	460	IU
111-44-4	bis(2-Chloroethyl)Ether	460	IU
95-37-8	2-Chlorophenol	460	IU
541-73-1	1,3-Dichlorobenzene	460	IU
106-46-7	1,4-Dichlorobenzene	460	IU
95-50-1	1,2-Dichlorobenzene	460	IU
95-48-7	2-Methylphenol	460	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	460	IU
106-44-5	4-Methylphenol	460	IU
621-64-7	N-Nitroso-Di-n-Propylamine	460	IU
67-72-1	Hexachloroethane	460	IU
98-95-3	Nitrobenzene	460	IU
78-59-1	Isophorone	460	IU
88-73-5	2-Nitrophenol	460	IU
105-67-9	2,4-Dimethylphenol	460	IU
111-91-1	bis(2-Chloroethoxy)Methane	460	IU
120-83-2	2,4-Dichlorophenol	460	IU
120-82-1	1,2,4-Trichlorobenzene	460	IU
91-20-3	Naphthalene	460	IU
106-47-8	4-Chloroaniline	460	IU
87-68-3	Hexachlorobutadiene	460	IU
59-50-7	4-Chloro-3-Methylphenol	460	IU
91-37-6	2-Methylnaphthalene	460	IU
77-47-4	Hexachlorocyclopentadiene	460	IU
88-06-2	2,4,6-Trichlorophenol	460	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-38-7	2-Chloronaphthalene	460	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	460	IU
208-96-8	Acenaphthylene	460	IU
606-20-2	2,6-Dinitrotoluene	460	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	460	IU

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE 1
(Revised)

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW21

SED-4

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060834

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060834R

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 29 decanted: (Y/N) N

Date Extracted: 06/29/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.

COMPOUND

51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	460	IU
121-14-2	2,4-Dinitrotoluene	460	IU
84-66-2	Diethylphthalate	460	IU
7005-72-3	4-Chlorophenyl-phenylether	460	IU
86-73-7	Fluorene	460	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	460	IU
101-55-3	4-Bromophenyl-phenylether	460	IU
118-74-1	Hexachlorobenzene	460	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	180	IJ
120-12-7	Anthracene	460	IU
86-74-8	Carbazole	460	IU
84-74-2	Di-n-Butylphthalate	410	IBJ
206-44-0	Fluoranthene	410	IJ
129-00-0	Pyrene	220	IJ
85-68-7	Butylbenzylphthalate	460	IU
91-94-1	3,3'-Dichlorobenzidine	460	IU
56-55-3	Benzo(a)Anthracene	460	IU
218-01-9	Chrysene	160	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	240	IJ
117-84-0	Di-n-Octyl Phthalate	460	IU
205-99-2	Benzo(b)Fluoranthene	400	IJ
207-08-9	Benzo(k)Fluoranthene	460	IU
50-32-8	Benzo(a)Pyrene	150	IJ
193-39-5	Indeno(1,2,3-cd)Pyrene	460	IU
53-70-3	Dibenz(a,h)Anthracene	460	IU
191-24-2	Benzo(g,h,i)Perylene	140	IJ

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000289

3/90

1556

13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ORIGINAL
CKW2200

Lab Name: ENVIROSYSTEMS Contract: 68D10084
Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20
Matrix: (soil/water) SOIL Lab Sample ID: 93060835
Sample wt/vol: 30.0 (g/mL) 0 Lab File ID: S060835RE
Level: (low/med) LOW Date Received: 06/03/93
% Moisture: 49 decanted: (Y/N) N Date Extracted: 07/02/93
Concentrated Extract Volume: 300.0 (uL) Date Analyzed: 07/06/93
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
108-95-2	Phenol	650	IU
111-44-4	bis(2-Chloroethyl)Ether	650	IU
95-57-8	2-Chlorophenol	650	IU
541-73-1	1,3-Dichlorobenzene	650	IU
106-46-7	1,4-Dichlorobenzene	650	IU
95-50-1	1,2-Dichlorobenzene	650	IU
95-48-7	2-Methylphenol	650	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	650	IU
106-44-5	4-Methylphenol	280	IJ
621-64-7	N-Nitroso-Di-n-Propylamine	650	IU
67-72-1	Hexachloroethane	650	IU
98-95-3	Nitrobenzene	650	IU
78-59-1	Isophorone	650	IU
88-75-5	2-Nitrophenol	650	IU
105-67-9	2,4-Dimethylphenol	650	IU
111-91-1	bis(2-Chloroethoxy)Methane	650	IU
120-83-2	2,4-Dichlorophenol	650	IU
120-82-1	1,2,4-Trichlorobenzene	650	IU
91-20-3	Naphthalene	650	IU
106-47-8	4-Chloroaniline	650	IU
87-68-3	Hexachlorobutadiene	650	IU
59-50-7	4-Chloro-3-Methylphenol	650	IU
91-57-6	2-Methylnaphthalene	650	IU
77-47-4	Hexachlorocyclopentadiene	650	IU
88-06-2	2,4,6-Trichlorophenol	650	IU
95-95-4	2,4,5-Trichlorophenol	1600	IU
91-58-7	2-Chloronaphthalene	650	IU
88-74-4	2-Nitroaniline	1600	IU
131-11-3	Dimethylphthalate	650	IU
208-96-8	Acenaphthylene	650	IU
606-20-2	2,6-Dinitrotoluene	650	IU
99-09-2	3-Nitroaniline	1600	IU
83-32-9	Acenaphthene	650	IU

288000AA

FORM I SV-1

AR000290

0814

4/16
2/18
3/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS Contract: 68D10084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060835
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 5060835RE
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 49 decanted: (Y/N) N Date Extracted: 07/02/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 07/06/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	1600	IU
100-02-7	4-Nitrophenol	1600	IU
132-64-9	Dibenzofuran	650	IU
121-14-2	2,4-Dinitrotoluene	650	IU
84-66-2	Diethylphthalate	650	IU
7005-72-3	4-Chlorophenyl-phenylether	650	IU
86-73-7	Fluorene	650	IU
100-01-6	4-Nitroaniline	1600	IU
534-52-1	4,6-Dinitro-2-methylphenol	1600	IU
86-30-6	N-Nitrosodiphenylamine (1)	650	IU
101-55-3	4-Bromophenyl-phenylether	650	IU
118-74-1	Hexachlorobenzene	650	IU
87-86-3	Pentachlorophenol	1600	IU
85-01-8	Phenanthrene	280	IJ
120-12-7	Anthracene	650	IU
86-74-8	Carbazole	650	IU
84-74-2	Di-n-Butylphthalate	880	IB
206-44-0	Fluoranthene	900	I
129-00-0	Pyrene	640	IJ
85-68-7	Butylbenzylphthalate	650	IU
91-94-1	3,3'-Dichlorobenzidine	650	IU
56-55-3	Benzo(a)Anthracene	340	IJ
218-01-9	Chrysene	390	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	650	IU
117-84-0	Di-n-Octyl Phthalate	650	IU
205-99-2	Benzo(b)Fluoranthene	1000	I
207-08-9	Benzo(k)Fluoranthene	650	IU
50-32-8	Benzo(a)Pyrene	410	IJ
193-39-5	Indeno(1,2,3-cd)Pyrene	320	IJ
53-70-3	Dibenz(a,h)Anthracene	650	IU
191-24-2	Benzo(g,h,i)Perylene	420	IJ

(1) - Cannot be separated from Diphenylamine

AR000291

FORM I SV-2

8051100A

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13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW23

Lab Name: ENVIROSYSTEMS Contract: 68010084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060836
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9060836
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 43 decanted: (Y/N) N Date Extracted: 06/10/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND		
108-95-2	Phenol	600	1U
111-44-4	bis(2-Chloroethyl)Ether	600	1U
95-57-8	2-Chlorophenol	600	1U
541-73-1	1,3-Dichlorobenzene	600	1U
106-46-7	1,4-Dichlorobenzene	600	1U
95-50-1	1,2-Dichlorobenzene	600	1U
95-48-7	2-Methylphenol	600	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	600	1U
106-44-3	4-Methylphenol	600	1U
621-64-7	N-Nitroso-Di-n-Propylamine	600	1U
67-72-1	Hexachloroethane	600	1U
98-95-3	Nitrobenzene	600	1U
78-59-1	Isophorone	600	1U
88-73-5	2-Nitrophenol	600	1U
105-67-9	2,4-Dimethylphenol	600	1U
111-91-1	bis(2-Chloroethoxy)Methane	600	1U
120-83-2	2,4-Dichlorophenol	600	1U
120-82-1	1,2,4-Trichlorobenzene	600	1U
71-20-3	Naphthalene	600	1U
106-47-8	4-Chloroaniline	600	1U
87-68-3	Hexachlorobutadiene	600	1U
59-50-7	4-Chloro-3-Methylphenol	600	1U
91-57-6	2-Methylnaphthalene	600	1U
77-47-4	Hexachlorocyclopentadiene	600	1U
88-06-2	2,4,6-Trichlorophenol	600	1U
95-95-4	2,4,5-Trichlorophenol	1500	1U
91-58-7	2-Chloronaphthalene	600	1U
88-74-4	2-Nitroaniline	1500	1U
131-11-3	Dimethylphthalate	600	1U
208-96-8	Acenaphthylene	600	1U
606-20-2	2,6-Dinitrotoluene	600	1U
99-09-2	3-Nitroaniline	1500	1U
83-32-9	Acenaphthene	600	1U

AR000292

FORM I SV-1

1675

3/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW23

Lab Name: ENVIROSYSTEMS Contract: 6SD10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060836

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 5060836

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: 45 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
51-28-5	2,4-Dinitrophenol	1500	IU
100-02-7	4-Nitrophenol	1500	IU
132-64-9	Dibenzofuran	600	IU
121-14-2	2,4-Dinitrotoluene	600	IU
84-66-2	Diethylphthalate	600	IU
7005-72-3	4-Chlorophenyl-phenylether	600	IU
86-73-7	Fluorene	600	IU
100-01-6	4-Nitroaniline	1500	IU
534-52-1	4,6-Dinitro-2-methylphenol	1500	IU
86-30-6	N-Nitrosodiphenylamine (1)	600	IU
101-55-3	4-Bromophenyl-phenylether	600	IU
118-74-1	Hexachlorobenzene	600	IU
87-86-5	Pentachlorophenol	1500	IU
85-01-8	Phenanthrene	570	IJ
120-12-7	Anthracene	600	IU
86-74-8	Carbazole	600	IU
84-74-2	Di-n-Butylphthalate	440	IU
206-44-0	Fluoranthene	1400	I
129-00-0	Pyrene	620	I
85-68-7	Butylbenzylphthalate	600	IU
91-94-1	3,3'-Dichlorobenzidine	600	IU
56-55-3	Benzo(a)Anthracene	460	IJ
218-01-9	Chrysene	510	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	I
117-84-0	Di-n-Octyl Phthalate	600	IU
205-99-2	Benzo(b)Fluoranthene	1100	I
207-08-9	Benzo(k)Fluoranthene	600	IU
50-32-8	Benzo(a)Pyrene	190	IJ
193-39-5	Indeno(1,2,3-cd)Pyrene	600	IU
53-70-3	Dibenz(a,h)Anthracene	600	IU
191-24-2	Benzo(g,h,i)Perylene	600	IU

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

6876

3/90

AR000293

13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW24

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKL

Matrix: (soil/water) SOIL

Lab Sample ID: 93060837

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: 9060837

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 27 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	450	IU
111-44-4	bis(2-Chloroethyl)Ether	450	IU
95-57-8	2-Chlorophenol	450	IU
541-73-1	1,3-Dichlorobenzene	450	IU
106-46-7	1,4-Dichlorobenzene	450	IU
95-50-1	1,2-Dichlorobenzene	450	IU
95-48-7	2-Methylphenol	450	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	450	IU
106-44-5	4-Methylphenol	450	IU
621-64-7	N-Nitroso-Di-n-Propylamine	450	IU
67-72-1	Hexachloroethane	450	IU
98-95-3	Nitrobenzene	450	IU
78-59-1	Isophorone	450	IU
88-75-5	2-Nitrophenol	450	IU
105-67-9	2,4-Dimethylphenol	450	IU
111-91-1	bis(2-Chloroethoxy)Methane	450	IU
120-83-2	2,4-Dichlorophenol	450	IU
120-82-1	1,2,4-Trichlorobenzene	450	IU
91-20-3	Naphthalene	450	IU
106-47-8	4-Chloroaniline	450	IU
87-68-3	Hexachlorobutadiene	450	IU
59-50-7	4-Chloro-3-Methylphenol	450	IU
91-57-6	2-Methylnaphthalene	450	IU
77-47-4	Hexachlorocyclopentadiene	450	IU
88-06-2	2,4,6-Trichlorophenol	450	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-58-7	2-Chloronaphthalene	450	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	450	IU
208-96-8	Acenaphthylene	450	IU
606-20-2	2,6-Dinitrotoluene	450	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	450	IU

FORM I SV-1

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10
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW24

Lab Name: ENVIROSYSTEMS

Contract: 6ED10084

Lab Code: ENVSYS Case No.: 20101

SAS No.: _____ SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060837

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060837

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 27 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/28/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	450	IU
121-14-2	2,4-Dinitrotoluene	450	IU
84-66-2	Diethylphthalate	450	IU
7005-72-3	4-Chlorophenyl-phenylether	450	IU
86-73-7	Fluorene	450	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	450	IU
101-55-3	4-Bromophenyl-phenylether	450	IU
118-74-1	Hexachlorobenzene	450	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	310	IJ
120-12-7	Anthracene	450	IU
86-74-8	Carbazole	450	IU
84-74-2	Di-n-Butylphthalate	200	IBJ
206-44-0	Fluoranthene	750	I
129-00-0	Pyrene	310	IJ
85-68-7	Butylbenzylphthalate	450	IU
91-94-1	3,3'-Dichlorobenzidine	450	IU
56-55-3	Benzo(a)Anthracene	260	IJ
218-01-9	Chrysene	300	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	660	I
117-84-0	Di-n-Octyl Phthalate	450	IU
205-99-2	Benzo(b)Fluoranthene	740	I
207-08-9	Benzo(k)Fluoranthene	450	IU
50-32-8	Benzo(a)Pyrene	450	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	450	IU
53-70-3	Dibenz(a,h)Anthracene	450	IU
191-24-2	Benzo(g,h,i)Perylene	450	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

283 471
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SED 9

EPA SAMPLE

CKW26

Lab Name: ENVIRQSYSTEMS Contract: 68D10084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060838
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 5060838
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 29 decanted: (Y/N) N Date Extracted: 06/10/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		
108-93-2	Phenol	460	IU
111-44-4	bis(2-Chloroethyl)Ether	460	IU
95-57-8	2-Chlorophenol	460	IU
341-73-1	1,3-Dichlorobenzene	460	IU
106-46-7	1,4-Dichlorobenzene	460	IU
95-50-1	1,2-Dichlorobenzene	460	IU
95-48-7	2-Methylphenol	460	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	460	IU
106-44-3	4-Methylphenol	310	IJ
621-64-7	N-Nitroso-Di-n-Propylamine	460	IU
67-72-1	Hexachloroethane	460	IU
98-95-3	Nitrobenzene	460	IU
78-59-1	Isophorone	460	IU
88-75-3	2-Nitrophenol	460	IU
105-67-9	2,4-Dimethylphenol	460	IU
111-91-1	bis(2-Chloroethoxy)Methane	460	IU
120-83-2	2,4-Dichlorophenol	460	IU
120-82-1	1,2,4-Trichlorobenzene	460	IU
91-20-3	Naphthalene	460	IU
106-47-8	4-Chloroaniline	460	IU
87-68-3	Hexachlorobutadiene	460	IU
59-50-7	4-Chloro-3-Methylphenol	460	IU
91-57-6	2-Methylnaphthalene	460	IU
77-47-4	Hexachlorocyclopentadiene	460	IU
88-06-2	2,4,6-Trichlorophenol	460	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-58-7	2-Chloronaphthalene	460	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	460	IU
208-96-8	Acenaphthylene	460	IU
606-20-2	2,6-Dinitrotoluene	460	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	460	IU

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FORM I SV-1

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10
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW26

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060838

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060838

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 29 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	460	IU
121-14-2	2,4-Dinitrotoluene	460	IU
84-66-2	Diethylphthalate	460	IU
7005-72-3	4-Chlorophenyl-phenylether	460	IU
86-73-7	Fluorene	460	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	460	IU
101-55-3	4-Bromophenyl-phenylether	460	IU
118-74-1	Hexachlorobenzene	460	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	500	I
120-12-7	Anthracene	460	IU
86-74-8	Carbazole	460	IU
84-74-2	Di-n-Butylphthalate	460	IU
206-44-0	Fluoranthene	880	I
129-00-0	Pyrene	340	IJ
85-68-7	Butylbenzylphthalate	460	IU
91-94-1	3,3'-Dichlorobenzidine	460	IU
56-55-3	Benzo(a)Anthracene	310	IJ
218-01-9	Chrysene	320	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	690	I
117-84-0	Di-n-Octyl Phthalate	460	IU
205-99-2	Benzo(b)Fluoranthene	600	I
207-08-9	Benzo(k)Fluoranthene	460	IU
50-32-8	Benzo(a)Pyrene	460	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	460	IU
53-70-3	Dibenz(a,h)Anthracene	460	IU
191-24-2	Benzo(g,h,i)Perylene	460	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000297

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13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW27

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060839Sample wt/vol: 30.0 (g/mL) GLab File ID: S060839Level: (low/med) LOWDate Received: 06/03/93% Moisture: 22 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/29/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.8

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
108-95-2	Phenol	420	IU
111-44-4	bis(2-Chloroethyl)Ether	420	IU
95-57-3	2-Chlorophenol	420	IU
541-73-1	1,3-Dichlorobenzene	420	IU
106-46-7	1,4-Dichlorobenzene	420	IU
95-50-1	1,2-Dichlorobenzene	420	IU
95-48-7	2-Methylphenol	420	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	420	IU
106-44-5	4-Methylphenol	320	IU
621-64-7	N-Nitroso-Di-n-Propylamine	420	IU
67-72-1	Hexachloroethane	420	IU
98-95-3	Nitrobenzene	420	IU
78-59-1	Isophorone	420	IU
88-75-5	2-Nitrophenol	420	IU
105-67-9	2,4-Dimethylphenol	420	IU
111-91-1	bis(2-Chloroethoxy)Methane	420	IU
120-83-2	2,4-Dichlorophenol	420	IU
120-82-1	1,2,4-Trichlorobenzene	420	IU
91-20-3	Naphthalene	420	IU
106-47-8	4-Chloroaniline	420	IU
87-68-3	Hexachlorobutadiene	420	IU
59-50-7	4-Chloro-3-Methylphenol	420	IU
91-57-6	2-Methylnaphthalene	420	IU
77-47-4	Hexachlorocyclopentadiene	420	IU
88-06-2	2,4,6-Trichlorophenol	420	IU
95-95-4	2,4,5-Trichlorophenol	1000	IU
91-58-7	2-Chloronaphthalene	420	IU
88-74-4	2-Nitroaniline	1000	IU
131-11-3	Dimethylphthalate	420	IU
208-96-8	Acenaphthylene	420	IU
606-20-2	2,6-Dinitrotoluene	420	IU
99-09-2	3-Nitroaniline	1000	IU
83-32-9	Acenaphthene	420	IU

AR000298

FORM I SV-1

PR 14 3/9

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

Lab Name: ENVIROSYSTEMS

Contract: 6SD10084

CKW27

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060839

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060839

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.8

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
51-28-5	2,4-Dinitrophenol	1000	IU
100-02-7	4-Nitrophenol	1000	IU
132-64-9	Dibenzofuran	420	IU
121-14-2	2,4-Dinitrotoluene	420	IU
84-66-2	Diethylphthalate	420	IU
7005-72-3	4-Chlorophenyl-phenylether	420	IU
86-73-7	Fluorene	420	IU
100-01-6	4-Nitroaniline	1000	IU
534-52-1	4,6-Dinitro-2-methylphenol	1000	IU
86-30-6	N-Nitrosodiphenylamine (1)	420	IU
101-55-3	4-Bromophenyl-phenylether	420	IU
118-74-1	Hexachlorobenzene	420	IU
87-86-5	Pentachlorophenol	1000	IU
85-01-8	Phenanthrene	420	IU
120-12-7	Anthracene	420	IU
86-74-8	Carbazole	420	IU
84-74-2	Di-n-Butylphthalate	4200	IBE
206-44-0	Fluoranthene	180	IJ
129-00-0	Pyrene	420	IU
85-68-7	Butylbenzylphthalate	420	IU
91-94-1	3,3'-Dichlorobenzidine	420	IU
56-55-3	Benzo(a)Anthracene	420	IU
218-01-9	Chrysene	420	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	140	IJ
117-84-0	Di-n-Octyl Phthalate	420	IU
205-99-2	Benzo(b)Fluoranthene	170	IJ
207-08-9	Benzo(k)Fluoranthene	420	IU
50-32-8	Benzo(a)Pyrene	420	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	420	IU
53-70-3	Dibenz(a,h)Anthracene	420	IU
191-24-2	Benzo(g,h,i)Perylene	420	IU

(1) - Cannot be separated from Diphenylamine

13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE 1

CKW27DL

Lab Name: ENVIROSYSTEMS

Contract: 68010084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060839

Conc. wt/vol: 30.0 (g/mL) 0

Lab File ID: 90608390

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.8

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
108-95-2	Phenol	850	IU
111-44-4	bis(2-Chloroethyl)Ether	850	IU
95-57-8	2-Chlorophenol	850	IU
541-73-1	1,3-Dichlorobenzene	850	IU
106-46-7	1,4-Dichlorobenzene	850	IU
95-50-1	1,2-Dichlorobenzene	850	IU
95-48-7	2-Methylphenol	850	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	850	IU
106-44-5	4-Methylphenol	-230	IDJ
621-64-7	N-Nitroso-Di-n-Propylamine	850	IU
67-72-1	Hexachloroethane	850	IU
98-95-3	Nitrobenzene	850	IU
78-59-1	Isophorone	850	IU
88-73-3	2-Nitrophenol	850	IU
103-67-9	2,4-Dimethylphenol	850	IU
111-91-1	bis(2-Chloroethoxy)Methane	850	IU
120-83-2	2,4-Dichlorophenol	850	IU
120-82-1	1,2,4-Trichlorobenzene	850	IU
91-20-3	Naphthalene	850	IU
106-47-8	4-Chloroaniline	850	IU
87-68-3	Hexachlorobutadiene	850	IU
59-50-7	4-Chloro-3-Methylphenol	850	IU
91-37-6	2-Methylnaphthalene	850	IU
77-47-4	Hexachlorocyclopentadiene	850	IU
88-06-2	2,4,6-Trichlorophenol	850	IU
95-95-4	2,4,5-Trichlorophenol	2100	IU
91-58-7	2-Chloronaphthalene	850	IU
88-74-4	2-Nitroaniline	2100	IU
131-11-3	Dimethylphthalate	850	IU
208-96-8	Acenaphthylene	850	IU
605-20-2	2,6-Dinitrotoluene	850	IU
99-09-2	3-Nitroaniline	2100	IU
83-32-9	Acenaphthene	850	IU

FORM I SV-1

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW27DL

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060839

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 50608390

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0(uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.8

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	G
51-28-3	2,4-Dinitrophenol	2100	IU
100-02-7	4-Nitrophenol	2100	IU
132-64-9	Dibenzofuran	850	IU
121-14-2	2,4-Dinitrotoluene	850	IU
84-66-2	Diethylphthalate	850	IU
7005-72-3	4-Chlorophenyl-phenylether	850	IU
84-73-7	Fluorene	850	IU
100-01-6	4-Nitroaniline	2100	IU
534-52-1	4,6-Dinitro-2-methylphenol	2100	IU
86-30-6	N-Nitrosodiphenylamine (1)	850	IU
101-55-3	4-Bromophenyl-phenylether	850	IU
118-74-1	Hexachlorobenzene	850	IU
87-86-5	Pentachlorophenol	2100	IU
85-01-8	Phenanthrene	850	IU
120-12-7	Anthracene	850	IU
84-74-8	Carbazole	850	IU
84-74-2	Di-n-Butylphthalate	4000	IBD
206-44-0	Fluoranthene	850	IU
129-00-0	Pyrene	850	IU
85-68-7	Butylbenzylphthalate	850	IU
91-94-1	3,3'-Dichlorobenzidine	850	IU
56-55-3	Benzo(a)Anthracene	850	IU
218-01-9	Chrysene	850	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	850	IU
117-84-0	Di-n-Octyl Phthalate	850	IU
205-99-2	Benzo(b)Fluoranthene	850	IU
207-08-9	Benzo(k)Fluoranthene	850	IU
50-32-8	Benzo(a)Pyrene	850	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	850	IU
53-70-3	Dibenz(a,h)Anthracene	850	IU
191-24-2	Benzo(g,h,i)Perylene	850	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000301

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13
SEMIVCLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW28

SEP-11

Lab Name: ENVIRCSYSTEMS Contract: 48D10084
 Lab Code: ENVSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20
 Matrix: (soil/water) SQL Lab Sample ID: 93060840
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9080840
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 23 decanted: (Y/N) N Date Extracted: 06/10/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/28/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.9

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
108-95-2	Phenol	440	IU
111-44-4	bis(2-Chloroethyl)Ether	440	IU
95-57-3	2-Chlorophenol	440	IU
541-73-1	1,3-Dichlorobenzene	440	IU
106-46-7	1,4-Dichlorobenzene	440	IU
95-50-1	1,2-Dichlorobenzene	440	IU
95-48-7	2-Methylphenol	440	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	440	IU
106-44-3	4-Methylphenol	440	IU
621-64-7	N-Nitroso-Di-n-Propylamine	440	IU
67-72-1	Hexachloroethane	440	IU
98-95-3	Nitrobenzene	440	IU
78-59-1	Isophorone	440	IU
88-75-5	2-Nitrophenol	440	IU
105-67-9	2,4-Dimethylphenol	440	IU
111-91-1	bis(2-Chloroethoxy)Methane	440	IU
120-83-2	2,4-Dichlorophenol	440	IU
120-82-1	1,2,4-Trichlorobenzene	440	IU
91-20-3	Naphthalene	440	IU
106-47-8	4-Chloroaniline	440	IU
87-68-3	Hexachlorobutadiene	440	IU
59-50-7	4-Chloro-3-Methylphenol	440	IU
91-57-6	2-Methylnaphthalene	440	IU
77-47-4	Hexachlorocyclopentadiene	440	IU
88-06-2	2,4,6-Trichlorophenol	440	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-58-7	2-Chloronaphthalene	440	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	440	IU
208-96-8	Acenaphthylene	440	IU
606-20-2	2,6-Dinitrotoluene	440	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	440	IU

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FORM I SV-1

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW28
 Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060840
 Sample wt/vol: 30.0 (g/mL) g Lab File ID: 5080840
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 25 decanted: (Y/N) N Date Extracted: 06/10/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	
51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	440	IU
121-14-2	2,4-Dinitrotoluene	440	IU
84-66-2	Diethylphthalate	440	IU
7005-72-3	4-Chlorophenyl-phenylether	440	IU
86-73-7	Fluorene	440	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	440	IU
101-55-3	4-Bromophenyl-phenylether	440	IU
118-74-1	Hexachlorobenzene	440	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	440	IU
120-12-7	Anthracene	440	IU
86-74-8	Carbazole	440	IU
84-74-2	Di-n-Butylphthalate	440	IU
206-44-0	Fluoranthene	440	IU
129-00-0	Pyrene	440	IU
85-68-7	Butylbenzylphthalate	440	IU
91-94-1	3,3'-Dichlorobenzidine	440	IU
56-55-3	Benzo(a)Anthracene	440	IU
218-01-9	Chrysene	440	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	230	IJ
117-84-0	Di-n-Octyl Phthalate	440	IU
205-99-2	Benzo(b)Fluoranthene	440	IU
207-08-9	Benzo(k)Fluoranthene	440	IU
50-32-8	Benzo(a)Pyrene	440	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	440	IU
53-70-3	Dibenz(a,h)Anthracene	440	IU
191-24-2	Benzo(g,h,i)Perylene	440	IU

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW29

Lab Name: ENVIROSYSTEMS Contract: 62D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW2

Matrix: (soil/water) SOIL Lab Sample ID: 93060841

Sample wt/vol: 30.0 (g/mL) 0 Lab File ID: S060841

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: 19 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/28/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
108-95-2	Phenol	410	IU
111-44-4	bis(2-Chloroethyl)Ether	410	IU
95-57-8	2-Chlorophenol	410	IU
541-73-1	1,3-Dichlorobenzene	410	IU
106-46-7	1,4-Dichlorobenzene	410	IU
95-50-1	1,2-Dichlorobenzene	410	IU
95-48-7	2-Methylphenol	410	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	410	IU
106-44-5	4-Methylphenol	410	IU
621-64-7	N-Nitroso-Di-n-Propylamine	410	IU
67-72-1	Hexachloroethane	410	IU
98-95-3	Nitrobenzene	410	IU
78-59-1	Isophorone	410	IU
88-73-5	2-Nitrophenol	410	IU
105-67-9	2,4-Dimethylphenol	410	IU
111-91-1	bis(2-Chloroethoxy)Methane	410	IU
120-83-2	2,4-Dichlorophenol	410	IU
120-82-1	1,2,4-Trichlorobenzene	410	IU
91-20-3	Naphthalene	410	IU
106-47-8	4-Chloroaniline	410	IU
87-68-3	Hexachlorobutadiene	410	IU
59-50-7	4-Chloro-3-Methylphenol	410	IU
91-57-6	2-Methylnaphthalene	410	IU
77-47-4	Hexachlorocyclopentadiene	410	IU
88-06-2	2,4,6-Trichlorophenol	410	IU
95-95-4	2,4,5-Trichlorophenol	990	IU
91-58-7	2-Chloronaphthalene	410	IU
88-74-4	2-Nitroaniline	990	IU
131-11-3	Dimethylphthalate	410	IU
208-96-8	Acenaphthylene	410	IU
606-20-2	2,6-Dinitrotoluene	410	IU
99-09-2	3-Nitroaniline	990	IU
83-32-9	Acenaphthene	410	IU

FORM I SV-1

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW29

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060841

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060841

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/28/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	990	IU
100-02-7	4-Nitrophenol	990	IU
132-64-9	Dibenzofuran	410	IU
121-14-2	2,4-Dinitrotoluene	410	IU
84-66-2	Diethylphthalate	410	IU
7005-72-3	4-Chlorophenyl-phenylether	410	IU
86-73-7	Fluorene	410	IU
100-01-6	4-Nitroaniline	990	IU
534-52-1	4,6-Dinitro-2-methylphenol	990	IU
86-30-6	N-Nitrosodiphenylamine (1)	410	IU
101-55-3	4-Bromophenyl-phenylether	410	IU
118-74-1	Hexachlorobenzene	410	IU
87-86-5	Pentachlorophenol	990	IU
85-01-8	Phenanthrene	410	IU
120-12-7	Anthracene	410	IU
86-74-8	Carbazole	410	IU
84-74-2	Di-n-Butylphthalate	2500	IB
206-44-0	Fluoranthene	410	IU
129-00-0	Pyrene	410	IU
85-68-7	Butylbenzylphthalate	410	IU
91-94-1	3,3'-Dichlorobenzidine	410	IU
56-55-3	Benzo(a)Anthracene	410	IU
218-01-9	Chrysene	410	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	140	IJ
117-84-0	Di-n-Octyl Phthalate	410	IU
205-99-2	Benzo(b)Fluoranthene	180	IJ
207-08-9	Benzo(k)Fluoranthene	410	IU
50-32-8	Benzo(a)Pyrene	410	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	410	IU
53-70-3	Dibenz(a,h)Anthracene	410	IU
191-24-2	Benzo(g,h,i)Perylene	410	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

0957

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13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

CKW30

Lab Name: ENVIROSYSTEMS Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW

Matrix: (soil/water) SOIL Lab Sample ID: 93060842

Sample wt/vol: 30.0 (g/mL) G Lab File ID: SO60842

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: 53 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG 0

CAS NO.	COMPOUND		
108-95-2	Phenol	700	IU
111-44-4	bis(2-Chloroethyl)Ether	700	IU
95-57-8	2-Chlorophenol	700	IU
541-73-1	1,3-Dichlorobenzene	700	IU
106-46-7	1,4-Dichlorobenzene	700	IU
95-50-1	1,2-Dichlorobenzene	700	IU
95-48-7	2-Methylphenol	700	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	700	IU
106-44-5	4-Methylphenol	710	I
621-64-7	N-Nitroso-Di-n-Propylamine	700	IU
67-72-1	Hexachloroethane	700	IU
98-95-3	Nitrobenzene	700	IU
78-59-1	Isophorone	700	IU
88-75-3	2-Nitrophenol	700	IU
105-67-9	2,4-Dimethylphenol	700	IU
111-91-1	bis(2-Chloroethoxy)Methane	700	IU
120-83-2	2,4-Dichlorophenol	700	IU
120-82-1	1,2,4-Trichlorobenzene	700	IU
91-20-3	Naphthalene	700	IU
106-47-8	4-Chloroaniline	700	IU
87-68-3	Hexachlorobutadiene	700	IU
59-50-7	4-Chloro-3-Methylphenol	700	IU
91-57-6	2-Methylnaphthalene	700	IU
77-47-4	Hexachlorocyclopentadiene	700	IU
88-06-2	2,4,6-Trichlorophenol	700	IU
95-95-4	2,4,5-Trichlorophenol	1700	IU
91-58-7	2-Chloronaphthalene	700	IU
88-74-4	2-Nitroaniline	1700	IU
131-11-3	Dimethylphthalate	700	IU
208-96-8	Acenaphthylene	700	IU
606-20-2	2,6-Dinitrotoluene	700	IU
99-09-2	3-Nitroaniline	1700	IU
83-32-9	Acenaphthene	700	IU

FORM I SV-1

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #

CKW30

SED 73

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060842

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060842

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 53 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND		
51-28-3	2,4-Dinitrophenol	1700	IU
100-02-7	4-Nitrophenol	1700	IU
132-64-9	Dibenzofuran	700	IU
121-14-2	2,4-Dinitrotoluene	700	IU
84-66-2	Diethylphthalate	700	IU
7005-72-3	4-Chlorophenyl-phenylether	700	IU
86-73-7	Fluorene	700	IU
100-01-6	4-Nitroaniline	1700	IU
534-52-1	4,6-Dinitro-2-methylphenol	1700	IU
86-30-6	N-Nitrosodiphenylamine (1)	700	IU
101-55-3	4-Bromophenyl-phenylether	700	IU
118-74-1	Hexachlorobenzene	700	IU
87-86-5	Pentachlorophenol	1700	IU
85-01-8	Phenanthrene	240	IJ
120-12-7	Anthracene	700	IU
86-74-8	Carbazole	700	IU
84-74-2	Di-n-Butylphthalate	700	IU
206-44-0	Fluoranthene	720	I
129-00-0	Pyrene	300	IJ
85-68-7	Butylbenzylphthalate	700	IU
91-94-1	3,3'-Dichlorobenzidine	700	IU
56-55-3	Benzo(a)Anthracene	330	IJ
218-01-9	Chrysene	360	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	220	IJ
117-84-0	Di-n-Octyl Phthalate	700	IU
205-99-2	Benzo(b)Fluoranthene	770	I
207-08-9	Benzo(k)Fluoranthene	700	IU
50-32-8	Benzo(a)Pyrene	700	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	700	IU
53-70-3	Dibenz(a,h)Anthracene	700	IU
191-24-2	Benzo(g,h,i)Perylene	700	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000307

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13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIRCSYSTEMS Contract: 68D10084 CKW31

Lab Code: ENVSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060843

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 5060843

Level: (low/med) LCW Date Received: 06/03/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	400	IU
111-44-4	bis(2-Chloroethyl)Ether	400	IU
95-57-8	2-Chlorophenol	400	IU
541-73-1	1,3-Dichlorobenzene	400	IU
106-46-7	1,4-Dichlorobenzene	400	IU
95-50-1	1,2-Dichlorobenzene	400	IU
95-48-7	2-Methylphenol	400	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	400	IU
106-44-5	4-Methylphenol	400	IU
621-64-7	N-Nitroso-Di-n-Propylamine	400	IU
67-72-1	Hexachloroethane	400	IU
98-95-3	Nitrobenzene	400	IU
78-59-1	Isophorone	400	IU
88-75-5	2-Nitrophenol	400	IU
105-67-9	2,4-Dimethylphenol	400	IU
111-91-1	bis(2-Chloroethoxy)Methane	400	IU
120-83-2	2,4-Dichlorophenol	400	IU
120-82-1	1,2,4-Trichlorobenzene	400	IU
91-20-3	Naphthalene	400	IU
106-47-8	4-Chloroaniline	400	IU
87-68-3	Hexachlorobutadiene	400	IU
59-50-7	4-Chloro-3-Methylphenol	400	IU
91-57-6	2-Methylnaphthalene	400	IU
77-47-4	Hexachlorocyclopentadiene	400	IU
88-06-2	2,4,6-Trichlorophenol	400	IU
95-95-4	2,4,5-Trichlorophenol	980	IU
91-58-7	2-Chloronaphthalene	400	IU
88-74-4	2-Nitroaniline	980	IU
131-11-3	Dimethylphthalate	400	IU
208-96-8	Acenaphthylene	400	IU
606-20-2	2,6-Dinitrotoluene	400	IU
99-09-2	3-Nitroaniline	980	IU
83-32-9	Acenaphthene	400	IU

1053

FORM I SV-1

1060084

AR000308

408/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW31

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060843

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060843

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.

COMPOUND

51-28-5	2,4-Dinitrophenol	980	IU
100-02-7	4-Nitrophenol	980	IU
132-64-9	Dibenzofuran	400	IU
121-14-2	2,4-Dinitrotoluene	400	IU
84-66-2	Diethylphthalate	400	IU
7005-72-3	4-Chlorophenyl-phenylether	400	IU
86-73-7	Fluorene	400	IU
100-01-6	4-Nitroaniline	980	IU
534-52-1	4,6-Dinitro-2-methylphenol	980	IU
86-30-6	N-Nitrosodiphenylamine (1)	400	IU
101-55-3	4-Bromophenyl-phenylether	400	IU
118-74-1	Hexachlorobenzene	400	IU
87-86-5	Pentachlorophenol	980	IU
85-01-8	Phenanthrene	150	IJ
120-12-7	Anthracene	400	IU
86-74-8	Carbazole	400	IU
84-74-2	Di-n-Butylphthalate	180	IJ
206-44-0	Fluoranthene	350	IJ
129-00-0	Pyrene	170	IJ
85-68-7	Butylbenzylphthalate	400	IU
91-94-1	3,3'-Dichlorobenzidine	400	IU
56-55-3	Benzo(a)Anthracene	250	IJ
218-01-9	Chrysene	200	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	310	IJ
117-84-0	Di-n-Octyl Phthalate	400	IU
205-99-2	Benzo(b)Fluoranthene	630	I
207-08-9	Benzo(k)Fluoranthene	400	IU
50-32-8	Benzo(a)Pyrene	400	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	400	IU
53-70-3	Dibenz(a,h)Anthracene	400	IU
191-24-2	Benzo(g,h,i)Perylene	400	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000309

3/90

13
SEMIVCLATILE ORGANICS ANALYSIS DATA SHEET

Soil 2 EPA SAMPLE NO.

CKW32

Lab Name: ENVIROSYSTEMS Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: _____ SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060844

Sample wt/vol: 30.0 (g/mL) Q Lab File ID: 9060844

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG - Q

CAS NO.	COMPOUND		
108-95-2	Phenol	370	IU
111-44-4	bis(2-Chloroethyl)Ether	370	IU
95-57-8	2-Chlorophenol	370	IU
341-73-1	1,3-Dichlorobenzene	370	IU
106-46-7	1,4-Dichlorobenzene	370	IU
95-50-1	1,2-Dichlorobenzene	370	IU
95-48-7	2-Methylphenol	370	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	370	IU
106-44-5	4-Methylphenol	370	IU
621-64-7	N-Nitroso-Di-n-Propylamine	370	IU
67-72-1	Hexachloroethane	370	IU
98-95-3	Nitrobenzene	370	IU
78-59-1	Isophorone	370	IU
88-75-5	2-Nitrophenol	370	IU
105-67-9	2,4-Dimethylphenol	370	IU
111-91-1	bis(2-Chloroethoxy)Methane	370	IU
120-83-2	2,4-Dichlorophenol	370	IU
120-82-1	1,2,4-Trichlorobenzene	370	IU
91-20-3	Naphthalene	370	IU
106-47-8	4-Chloroaniline	370	IU
87-68-3	Hexachlorobutadiene	370	IU
59-50-7	4-Chloro-3-Methylphenol	370	IU
91-57-6	2-Methylnaphthalene	370	IU
77-47-4	Hexachlorocyclopentadiene	370	IU
88-06-2	2,4,6-Trichlorophenol	370	IU
95-95-4	2,4,5-Trichlorophenol	910	IU
91-58-7	2-Chloronaphthalene	370	IU
88-74-4	2-Nitroaniline	910	IU
131-11-3	Dimethylphthalate	370	IU
208-96-8	Acenaphthylene	370	IU
606-20-2	2,6-Dinitrotoluene	370	IU
99-09-2	3-Nitroaniline	910	IU
83-32-9	Acenaphthene	370	IU

298
481

1C
SEMIVCLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW32
SOIL-2
 Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060844
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: SO60844
 Level: (low/med) LCW Date Received: 06/03/93
 % Moisture: 12 decanted: (Y/N) N Date Extracted: 06/10/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/29/93
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	910	IU
100-02-7	4-Nitrophenol	910	IU
132-64-9	Dibenzofuran	370	IU
121-14-2	2,4-Dinitrotoluene	370	IU
84-66-2	Diethylphthalate	370	IU
7005-72-3	4-Chlorophenyl-phenylether	370	IU
86-73-7	Fluorene	110	IJ
100-01-6	4-Nitroaniline	910	IU
534-52-1	4,6-Dinitro-2-methylphenol	910	IU
66-30-6	N-Nitrosodiphenylamine (1)	370	IU
101-55-3	4-Bromophenyl-phenylether	370	IU
118-74-1	Hexachlorobenzene	370	IU
87-86-5	Pentachlorophenol	910	IU
85-01-8	Phenanthrene	1200	I
120-12-7	Anthracene	190	IJ
86-74-8	Carbazole	140	IJ
84-74-2	Di-n-Butylphthalate	1100	IB
206-44-0	Fluoranthene	2000	I
129-00-0	Pyrene	740	I
85-68-7	Butylbenzylphthalate	370	IU
91-94-1	3,3'-Dichlorobenzidine	370	IU
56-55-3	Benzo(a)Anthracene	910	I
218-01-9	Chrysene	760	I
117-81-7	bis(2-Ethylhexyl)Phthalate	110	IJ
117-84-0	Di-n-Octyl Phthalate	370	IU
205-99-2	Benzo(b)Fluoranthene	1900	I
207-08-9	Benzo(k)Fluoranthene	370	IU
50-32-8	Benzo(a)Pyrene	200	IJ
193-39-5	Indeno(1,2,3-cd)Pyrene	140	IJ
53-70-3	Dibenz(a,h)Anthracene	370	IU
191-24-2	Benzo(g,h,i)Perylene	370	IU

(1) - Cannot be separated from Diphenylamine

299
107

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 3

CKW337

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060845Sample wt/vol: 30.0 (g/mL) gLab File ID: S060845Level: (low/med) LOWDate Received: 06/03/93% Moisture: 18 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/28/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	400	IU
111-44-4	bis(2-Chloroethyl)Ether	400	IU
95-57-8	2-Chlorophenol	400	IU
541-73-1	1,3-Dichlorobenzene	400	IU
106-46-7	1,4-Dichlorobenzene	400	IU
93-50-1	1,2-Dichlorobenzene	400	IU
93-48-7	2-Methylphenol	400	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	400	IU
106-44-5	4-Methylphenol	400	IU
621-64-7	N-Nitroso-Di-n-Propylamine	400	IU
67-72-1	Hexachloroethane	400	IU
98-95-3	Nitrobenzene	400	IU
78-59-1	Isophorone	400	IU
88-75-5	2-Nitrophenol	400	IU
105-67-9	2,4-Dimethylphenol	400	IU
111-91-1	bis(2-Chloroethoxy)Methane	400	IU
120-83-2	2,4-Dichlorophenol	400	IU
120-82-1	1,2,4-Trichlorobenzene	400	IU
91-20-3	Naphthalene	400	IU
106-47-8	4-Chloroaniline	400	IU
87-68-3	Hexachlorobutadiene	400	IU
59-50-7	4-Chloro-3-Methylphenol	400	IU
91-57-6	2-Methylnaphthalene	400	IU
77-47-4	Hexachlorocyclopentadiene	400	IU
88-06-2	2,4,6-Trichlorophenol	400	IU
95-95-4	2,4,5-Trichlorophenol	980	IU
91-58-7	2-Chloronaphthalene	400	IU
88-74-4	2-Nitroaniline	980	IU
131-11-3	Dimethylphthalate	400	IU
208-96-8	Acenaphthylene	400	IU
606-20-2	2,6-Dinitrotoluene	400	IU
99-09-2	3-Nitroaniline	980	IU
83-32-9	Acenaphthene	400	IU

FORM I SV-1

3/90

AR000312

1179A

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CKW33

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060845Sample wt/vol: 30.0 (g/mL) GLab File ID: 5060845Level: (low/med) LOWDate Received: 06/03/93% Moisture: 18 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/28/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.

COMPOUND

51-28-5	2,4-Dinitrophenol	980	IU
100-02-7	4-Nitrophenol	980	IU
132-64-9	Dibenzofuran	400	IU
121-14-2	2,4-Dinitrotoluene	400	IU
84-66-2	Diethylphthalate	400	IU
7005-72-3	4-Chlorophenyl-phenylether	400	IU
86-73-7	Fluorene	400	IU
100-01-6	4-Nitroaniline	980	IU
534-52-1	3,6-Dinitro-2-methylphenol	980	IU
86-30-6	N-Nitrosodiphenylamine (1)	400	IU
101-55-3	4-Bromophenyl-phenylether	400	IU
118-74-1	Hexachlorobenzene	400	IU
87-86-5	Pentachlorophenol	980	IU
85-01-8	Phenanthrene	400	IU
120-12-7	Anthracene	400	IU
86-74-8	Carbazole	400	IU
84-74-2	Di-n-Butylphthalate	2100	IB
206-44-0	Fluoranthene	130	IJ
129-00-0	Pyrene	400	IU
85-68-7	Butylbenzylphthalate	400	IU
91-94-1	3,3'-Dichlorobenzidine	400	IU
56-55-3	Benzo(a)Anthracene	400	IU
218-01-9	Chrysene	400	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	400	IU
117-84-0	Di-n-Octyl Phthalate	400	IU
205-99-2	Benzo(b)Fluoranthene	220	IJ
207-08-9	Benzo(k)Fluoranthene	400	IU
50-32-8	Benzo(a)Pyrene	400	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	400	IU
53-70-3	Dibenz(a,h)Anthracene	400	IU
191-24-2	Benzo(g,h,i)Perylene	400	IU

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

1180 3/90

AR000313

14
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS Contract: 68D10084 CKW34

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93060846

Sample wt/vol: 30.0 (g/mL) 9 Lab File ID: 5060846

Level: (low/med) LOW Date Received: 06/03/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/28/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	g
108-95-2	Phenol	360	1U
111-44-4	bis(2-Chloroethyl)Ether	360	1U
95-57-8	2-Chlorophenol	360	1U
541-73-1	1,3-Dichlorobenzene	360	1U
106-46-7	1,4-Dichlorobenzene	360	1U
95-50-1	1,2-Dichlorobenzene	360	1U
95-48-7	2-Methylphenol	360	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	1U
106-44-5	4-Methylphenol	360	1U
621-64-7	N-Nitroso-Di-n-Propylamine	360	1U
67-72-1	Hexachloroethane	360	1U
98-95-3	Nitrobenzene	360	1U
78-59-1	Isophorone	360	1U
88-75-5	2-Nitrophenol	360	1U
105-67-9	2,4-Dimethylphenol	360	1U
111-91-1	bis(2-Chloroethoxy)Methane	360	1U
120-83-2	2,4-Dichlorophenol	360	1U
120-82-1	1,2,4-Trichlorobenzene	360	1U
91-20-3	Naphthalene	360	1U
106-47-8	4-Chloroaniline	360	1U
87-68-3	Hexachlorobutadiene	360	1U
59-50-7	4-Chloro-3-Methylphenol	360	1U
91-57-6	2-Methylnaphthalene	360	1U
77-47-4	Hexachlorocyclopentadiene	360	1U
88-06-2	2,4,6-Trichlorophenol	360	1U
95-95-4	2,4,5-Trichlorophenol	880	1U
91-58-7	2-Chloronaphthalene	360	1U
88-74-4	2-Nitroaniline	880	1U
131-11-3	Dimethylphthalate	360	1U
208-96-8	Acenaphthylene	360	1U
606-20-2	2,6-Dinitrotoluene	360	1U
99-09-2	3-Nitroaniline	880	1U
83-32-9	Acenaphthene	360	1U

FORM I SV-1

3/90

0121-0084

AR000314

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: ENVIROSYSTEMSContract: 48D10084

CKW34

Lab Code: ENVSYSCase No.: 20101SAS No.: 101SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93040846Sample wt/vol: 30.0 (g/mL) GLab File ID: S060846Level: (low/med) LOWDate Received: 06/03/93% Moisture: 9 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/28/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	880	IU
100-02-7	4-Nitrophenol	880	IU
132-64-9	Dibenzofuran	360	IU
121-14-2	2,4-Dinitrotoluene	360	IU
84-66-2	Diethylphthalate	360	IU
7005-72-3	4-Chlorophenyl-phenylether	360	IU
86-73-7	Fluorene	360	IU
100-01-6	4-Nitroaniline	880	IU
534-52-1	4,6-Dinitro-2-methylphenol	880	IU
86-30-6	N-Nitrosodiphenylamine (1)	360	IU
101-55-3	4-Bromophenyl-phenylether	360	IU
118-74-1	Hexachlorobenzene	360	IU
87-86-5	Pentachlorophenol	880	IU
85-01-8	Phenanthrene	360	IU
120-12-7	Anthracene	360	IU
86-74-8	Carbazole	360	IU
84-74-2	Di-n-Butylphthalate	300	IU
206-44-0	Fluoranthene	360	IU
129-00-0	Pyrene	360	IU
85-68-7	Butylbenzylphthalate	360	IU
91-94-1	3,3'-Dichlorobenzidine	360	IU
56-55-3	Benzo(a)Anthracene	360	IU
218-01-9	Chrysene	360	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	120	IU
117-84-0	Di-n-Octyl Phthalate	360	IU
205-99-2	Benzo(b)Fluoranthene	360	IU
207-08-9	Benzo(k)Fluoranthene	360	IU
50-32-8	Benzo(a)Pyrene	360	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	360	IU
53-70-3	Dibenz(a,h)Anthracene	360	IU
191-24-2	Benzo(g,h,i)Perylene	360	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1222 3/90

AR000315

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SOILS

Lab Name: ENVIROSYSTEMSContract: 68D10084

CKW20

SOIL

Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060847Sample wt/vol: 30.0 (g/mL) gLab File ID: 5060847Level: (low/med) LOWDate Received: 06/03/93% Moisture: 21 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 300.0 (uL)Date Analyzed: 06/28/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	420	IU
111-44-4	bis(2-Chloroethyl)Ether	420	IU
95-57-8	2-Chlorophenol	420	IU
541-73-1	1,3-Dichlorobenzene	420	IU
106-46-7	1,4-Dichlorobenzene	420	IU
95-50-1	1,2-Dichlorobenzene	420	IU
95-48-7	2-Methylphenol	420	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	420	IU
106-44-3	4-Methylphenol	420	IU
621-64-7	N-Nitroso-Di-n-Propylamine	420	IU
67-72-1	Hexachloroethane	420	IU
98-95-3	Nitrobenzene	420	IU
78-59-1	Isophorone	420	IU
88-75-5	2-Nitrophenol	420	IU
105-67-9	2,4-Dimethylphenol	420	IU
111-91-1	bis(2-Chloroethoxy)Methane	420	IU
120-83-2	2,4-Dichlorophenol	420	IU
120-82-1	1,2,4-Trichlorobenzene	420	IU
91-20-3	Naphthalene	420	IU
106-47-8	4-Chloroaniline	420	IU
87-68-3	Hexachlorobutadiene	420	IU
59-50-7	4-Chloro-3-Methylphenol	420	IU
91-57-6	2-Methylnaphthalene	420	IU
77-47-4	Hexachlorocyclopentadiene	420	IU
88-06-2	2,4,6-Trichlorophenol	420	IU
95-95-4	2,4,5-Trichlorophenol	1000	IU
91-58-7	2-Chloronaphthalene	420	IU
88-74-4	2-Nitroaniline	1000	IU
131-11-3	Dimethylphthalate	420	IU
208-96-8	Acenaphthylene	420	IU
606-20-2	2,6-Dinitrotoluene	420	IU
99-09-2	3-Nitroaniline	1000	IU
83-32-9	Acenaphthene	420	IU

FORM I SV-1

1254

3/90

AR000316

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW33
SD1 L-5

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060847

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060847

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/28/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.

COMPOUND

51-28-5	2,4-Dinitrophenol	1000	IU
100-02-7	4-Nitrophenol	1000	IU
132-64-9	Dibenzofuran	420	IU
121-14-2	2,4-Dinitrotoluene	420	IU
84-66-2	Diethylphthalate	420	IU
7005-72-3	4-Chlorophenyl-phenylether	420	IU
86-73-7	Fluorene	420	IU
100-01-6	4-Nitroaniline	1000	IU
534-52-1	4,6-Dinitro-2-methylphenol	1000	IU
84-30-6	N-Nitrosodiphenylamine (1)	420	IU
101-55-3	4-Bromophenyl-phenylether	420	IU
118-74-1	Hexachlorobenzene	420	IU
87-84-5	Pentachlorophenol	1000	IU
85-01-8	Phenanthrene	420	IU
120-12-7	Anthracene	420	IU
86-74-8	Carbazole	420	IU
84-74-2	Di-n-Butylphthalate	420	IU
206-44-0	Fluoranthene	420	IU
129-00-0	Pyrene	420	IU
85-68-7	Butylbenzylphthalate	420	IU
91-94-1	3,3'-Dichlorobenzidine	420	IU
56-55-3	Benzo(a)Anthracene	420	IU
218-01-9	Chrysene	420	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	140	IJ
117-84-0	Di-n-Octyl Phthalate	420	IU
205-99-2	Benzo(b)Fluoranthene	420	IU
207-08-9	Benzo(k)Fluoranthene	420	IU
50-32-8	Benzo(a)Pyrene	420	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	420	IU
53-70-3	Dibenz(a,h)Anthracene	420	IU
191-24-2	Benzo(g,h,i)Perylene	420	IU

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

1255

3/90

61000084

AR000317

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 50128

EPA SAMPLE NO.

CKW38

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060861

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: 5060861

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.

COMPOUND

108-95-2	Phenol	430	IU
111-44-4	bis(2-Chloroethyl)Ether	430	IU
95-57-8	2-Chlorophenol	430	IU
541-73-1	1,3-Dichlorobenzene	430	IU
106-46-7	1,4-Dichlorobenzene	430	IU
95-50-1	1,2-Dichlorobenzene	430	IU
95-48-7	2-Methylphenol	430	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	430	IU
106-44-5	4-Methylphenol	430	IU
621-64-7	N-Nitroso-Di-n-Propylamine	430	IU
67-72-1	Hexachloroethane	430	IU
98-95-3	Nitrobenzene	430	IU
78-39-1	Isophorone	430	IU
88-75-5	2-Nitrophenol	430	IU
105-67-9	2,4-Dimethylphenol	430	IU
111-91-1	bis(2-Chloroethoxy)Methane	430	IU
120-83-2	2,4-Dichlorophenol	430	IU
120-82-1	1,2,4-Trichlorobenzene	430	IU
91-20-3	Naphthalene	430	IU
106-47-8	4-Chloroaniline	430	IU
87-68-3	Hexachlorobutadiene	430	IU
59-50-7	4-Chloro-3-Methylphenol	430	IU
91-57-6	2-Methylnaphthalene	430	IU
77-47-4	Hexachlorocyclopentadiene	430	IU
88-06-2	2,4,6-Trichlorophenol	430	IU
95-95-4	2,4,5-Trichlorophenol	1100	IU
91-58-7	2-Chloronaphthalene	430	IU
88-74-4	2-Nitroaniline	1100	IU
131-11-3	Dimethylphthalate	430	IU
208-96-8	Acenaphthylene	430	IU
606-20-2	2,6-Dinitrotoluene	430	IU
99-09-2	3-Nitroaniline	1100	IU
83-32-9	Acenaphthene	430	IU

FORM I SV-1

12883/90

AR000318

716-008A

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW38

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060861

Sample wt/vol: 30.0 (g/mL) Q

Lab File ID: 5060861

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	1100	IU
100-02-7	4-Nitrophenol	1100	IU
132-64-9	Dibenzofuran	430	IU
121-14-2	2,4-Dinitrotoluene	430	IU
84-66-2	Diethylphthalate	430	IU
7005-72-3	4-Chlorophenyl-phenylether	430	IU
86-73-7	Fluorene	430	IU
100-01-6	4-Nitroaniline	1100	IU
534-52-1	4,6-Dinitro-2-methylphenol	1100	IU
86-30-6	N-Nitrosodiphenylamine (1)	430	IU
101-55-3	4-Bromophenyl-phenylether	430	IU
118-74-1	Hexachlorobenzene	430	IU
87-86-5	Pentachlorophenol	1100	IU
85-01-8	Phenanthrene	160	IJ
120-12-7	Anthracene	430	IU
86-74-8	Carbazole	430	IU
84-74-2	Di-n-Butylphthalate	1000	IB
206-44-0	Fluoranthene	410	IJ
129-00-0	Pyrene	350	IJ
85-68-7	Butylbenzylphthalate	170	IJ
91-94-1	3,3'-Dichlorobenzidine	430	IU
56-55-3	Benzo(a)Anthracene	130	IJ
218-01-9	Chrysene	430	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	1600	I
117-84-0	Di-n-Octyl Phthalate	430	IU
205-99-2	Benzo(b)Fluoranthene	370	IJ
207-08-9	Benzo(k)Fluoranthene	430	IU
50-32-8	Benzo(a)Pyrene	430	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	430	IU
53-70-3	Dibenz(a,h)Anthracene	430	IU
191-24-2	Benzo(g,h,i)Perylene	430	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1289

3/90

02800861

AR000319

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

50129

CKW39

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060862Sample wt/vol: 30.0 (g/mL) GLab File ID: 9060862aLevel: (low/med) LOWDate Received: 04/23/93% Moisture: 14 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/30/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 6.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

108-95-2	Phenol	390	IU
111-44-4	bis(2-Chloroethyl)Ether	390	IU
95-57-8	2-Chlorophenol	390	IU
541-73-1	1,3-Dichlorobenzene	390	IU
106-46-7	1,4-Dichlorobenzene	390	IU
95-50-1	1,2-Dichlorobenzene	390	IU
95-48-7	2-Methylphenol	390	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	390	IU
106-44-5	4-Methylphenol	390	IU
621-64-7	N-Nitroso-Di-n-Propylamine	390	IU
67-72-1	Hexachloroethane	390	IU
98-95-3	Nitrobenzene	390	IU
78-59-1	Isophorone	390	IU
88-75-5	2-Nitrophenol	390	IU
105-67-9	2,4-Dimethylphenol	390	IU
111-91-1	bis(2-Chloroethoxy)Methane	390	IU
120-83-2	2,4-Dichlorophenol	390	IU
120-82-1	1,2,4-Trichlorobenzene	390	IU
91-20-3	Naphthalene	390	IU
106-47-8	4-Chloroaniline	390	IU
87-68-3	Hexachlorobutadiene	390	IU
59-50-7	4-Chloro-3-Methylphenol	390	IU
91-57-6	2-Methylnaphthalene	390	IU
77-47-4	Hexachlorocyclopentadiene	390	IU
88-06-2	2,4,6-Trichlorophenol	390	IU
95-95-4	2,4,5-Trichlorophenol	950	IU
91-58-7	2-Chloronaphthalene	390	IU
88-74-4	2-Nitroaniline	950	IU
131-11-3	Dimethylphthalate	390	IU
208-96-8	Acenaphthylene	390	IU
606-20-2	2,6-Dinitrotoluene	390	IU
99-09-2	3-Nitroaniline	950	IU
83-32-9	Acenaphthene	390	IU

FORM 1 SV-1

3/90

2100008A

AR000320

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: ENVIROSYSTEMS

Contract: 48D10084

CKW39

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060862

Sample wt/vol: 30.0 (g/mL) Q

Lab File ID: S060862

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

51-28-5	2,4-Dinitrophenol	950	IU
100-02-7	4-Nitrophenol	950	IU
132-64-9	Dibenzofuran	390	IU
121-14-2	2,4-Dinitrotoluene	390	IU
84-66-2	Diethylphthalate	390	IU
7005-72-3	4-Chlorophenyl-phenylether	390	IU
86-73-7	Fluorene	390	IU
100-01-6	4-Nitroaniline	950	IU
534-52-1	4,6-Dinitro-2-methylphenol	950	IU
86-30-6	N-Nitrosodiphenylamine (1)	390	IU
101-55-3	4-Bromophenyl-phenylether	390	IU
118-74-1	Hexachlorobenzene	390	IU
87-86-5	Pentachlorophenol	950	IU
85-01-8	Phenanthrene	390	IU
120-12-7	Anthracene	390	IU
86-74-8	Carbazole	390	IU
84-74-2	Di-n-Butylphthalate	580	IB
206-44-0	Fluoranthene	120	IJ
129-00-0	Pyrene	390	IU
85-68-7	Butylbenzylphthalate	390	IU
91-94-1	3,3'-Dichlorobenzidine	390	IU
56-55-3	Benzo(a)Anthracene	390	IU
218-01-9	Chrysene	390	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	1900	I
117-84-0	Di-n-Octyl Phthalate	390	IU
205-99-2	Benzo(b)Fluoranthene	290	IJ
207-08-9	Benzo(k)Fluoranthene	390	IU
50-32-8	Benzo(a)Pyrene	390	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	390	IU
53-70-3	Dibenz(a,h)Anthracene	390	IU
191-24-2	Benzo(g,h,i)Perylene	390	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1346 3/90

AR000321

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO

Soil 10

CKW40

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW20Matrix: (soil/water) SOILLab Sample ID: 93060863Sample wt/vol: 30.0 (g/mL) gLab File ID: 5060863ALevel: (low/med) LOWDate Received: 06/03/93% Moisture: 19 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/30/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 4.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.

COMPOUND

108-95-2	Phenol	390	IU
111-44-4	bis(2-Chloroethyl)Ether	390	IU
95-57-8	2-Chlorophenol	390	IU
541-73-1	1,3-Dichlorobenzene	390	IU
106-46-7	1,4-Dichlorobenzene	390	IU
95-50-1	1,2-Dichlorobenzene	390	IU
95-48-7	2-Methylphenol	390	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	390	IU
106-44-5	4-Methylphenol	390	IU
621-64-7	N-Nitroso-Di-n-Propylamine	390	IU
67-72-1	Hexachloroethane	390	IU
98-95-3	Nitrobenzene	390	IU
78-59-1	Isophorone	390	IU
88-75-5	2-Nitrophenol	390	IU
105-67-9	2,4-Dimethylphenol	390	IU
111-91-1	bis(2-Chloroethoxy)Methane	390	IU
120-83-2	2,4-Dichlorophenol	390	IU
120-82-1	1,2,4-Trichlorobenzene	390	IU
91-20-3	Naphthalene	390	IU
106-47-8	4-Chloroaniline	390	IU
87-68-3	Hexachlorobutadiene	390	IU
59-50-7	4-Chloro-3-Methylphenol	390	IU
91-57-6	2-Methylnaphthalene	390	IU
77-47-4	Hexachlorocyclopentadiene	390	IU
88-06-2	2,4,6-Trichlorophenol	390	IU
95-95-4	2,4,5-Trichlorophenol	940	IU
91-58-7	2-Chloronaphthalene	390	IU
88-74-4	2-Nitroaniline	940	IU
131-11-3	Dimethylphthalate	390	IU
208-96-8	Acenaphthylene	390	IU
606-20-2	2,6-Dinitrotoluene	390	IU
99-09-2	3-Nitroaniline	940	IU
83-32-9	Acenaphthene	390	IU

FORM I SV-1

3/90

AR000322

1383

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW40

SD1L-1D

b Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060863

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060863

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 4.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

G

51-28-5	2,4-Dinitrophenol	940	IU
100-02-7	4-Nitrophenol	940	IU
132-64-9	Dibenzofuran	390	IU
121-14-2	2,4-Dinitrotoluene	390	IU
84-66-2	Diethylphthalate	390	IU
7005-72-3	4-Chlorophenyl-phenylether	390	IU
86-73-7	Fluorene	390	IU
100-01-6	4-Nitroaniline	940	IU
534-52-1	4,6-Dinitro-2-methylphenol	940	IU
86-30-6	N-Nitrosodiphenylamine (1)	390	IU
101-55-3	4-Bromophenyl-phenylether	390	IU
118-74-1	Hexachlorobenzene	390	IU
87-86-5	Pentachlorophenol	940	IU
85-01-8	Phenanthrene	390	IU
120-12-7	Anthracene	390	IU
84-74-8	Carbazole	390	IU
84-74-2	Di-n-Butylphthalate	460	IB
206-44-0	Fluoranthene	390	IU
129-00-0	Pyrene	390	IU
11-12-7	Butylbenzylphthalate	390	IU
71-94-1	3,3'-Dichlorobenzidine	390	IU
56-55-3	Benzo(a)Anthracene	390	IU
218-01-9	Chrysene	390	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	150	IJ
117-84-0	Di-n-Octyl Phthalate	390	IU
205-99-2	Benzo(b)Fluoranthene	390	IU
207-08-9	Benzo(k)Fluoranthene	390	IU
50-32-8	Benzo(a)Pyrene	390	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	390	IU
53-70-3	Dibenz(a,h)Anthracene	390	IU
191-24-2	Benzo(g,h,i)Perylene	390	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1384-3/90

AR000323

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOIL 11

CKW41

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060864

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060864

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 3.0 (uL)

Dilution Factor: 3.0

GPC Cleanup: (Y/N) Y

pH: 6.9

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

0

CAS NO.

COMPOUND

108-95-2	Phenol	2000	IU
111-44-4	bis(2-Chloroethyl)Ether	2000	IU
95-57-8	2-Chlorophenol	2000	IU
541-73-1	1,3-Dichlorobenzene	2000	IU
106-46-7	1,4-Dichlorobenzene	2000	IU
95-50-1	1,2-Dichlorobenzene	2000	IU
95-48-7	2-Methylphenol	2000	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	2000	IU
106-44-5	4-Methylphenol	2000	IU
621-64-7	N-Nitroso-Di-n-Propylamine	2000	IU
67-72-1	Hexachloroethane	2000	IU
98-95-3	Nitrobenzene	2000	IU
78-59-1	Isophorone	2000	IU
88-75-5	2-Nitrophenol	2000	IU
105-67-9	2,4-Dimethylphenol	2000	IU
111-91-1	bis(2-Chloroethoxy)Methane	2000	IU
120-83-2	2,4-Dichlorophenol	2000	IU
120-82-1	1,2,4-Trichlorobenzene	2000	IU
91-20-3	Naphthalene	1200	IJ
106-47-8	4-Chloroaniline	2000	IU
87-68-3	Hexachlorobutadiene	2000	IU
59-50-7	4-Chloro-3-Methylphenol	2000	IU
91-57-6	2-Methylnaphthalene	710	IJ
77-47-4	Hexachlorocyclopentadiene	2000	IU
88-06-2	2,4,6-Trichlorophenol	2000	IU
95-95-4	2,4,5-Trichlorophenol	4900	IU
91-58-7	2-Chloronaphthalene	2000	IU
88-74-4	2-Nitroaniline	4900	IU
131-11-3	Dimethylphthalate	2000	IU
208-96-8	Acenaphthylene	2000	IU
606-20-2	2,6-Dinitrotoluene	2000	IU
99-09-2	3-Nitroaniline	4900	IU
83-32-9	Acenaphthene	1411	IU

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 65D10084

CKW41
SDIL-11

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060864

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060864

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
51-28-5	2,4-Dinitrophenol	4900	IU
100-02-7	4-Nitrophenol	4900	IU
132-64-9	Dibenzofuran	1200	IJ
121-14-2	2,4-Dinitrotoluene	2000	IU
84-66-2	Diethylphthalate	2000	IU
7005-72-3	4-Chlorophenyl-phenylether	2000	IU
86-73-7	Fluorene	1900	IJ
100-01-6	4-Nitroaniline	4900	IU
534-52-1	4,6-Dinitro-2-methylphenol	4900	IU
86-30-6	N-Nitrosodiphenylamine (1)	2000	IU
101-55-3	4-Bromophenyl-phenylether	2000	IU
118-74-1	Hexachlorobenzene	2000	IU
87-86-5	Pentachlorophenol	4900	IU
85-01-8	Phenanthrene	17000	IE
120-12-7	Anthracene	4000	I
86-74-8	Carbazole	2600	I
84-74-2	Di-n-Butylphthalate	700	IBJ
206-44-0	Fluoranthene	24000	IE
129-00-0	Pyrene	13000	I
85-68-7	Butylbenzylphthalate	2000	IU
91-94-1	3,3'-Dichlorobenzidine	2000	IU
56-55-3	Benzo(a)Anthracene	11000	I
218-01-9	Chrysene	8500	I
117-81-7	bis(2-Ethylhexyl)Phthalate	66000	IE
117-84-0	Di-n-Octyl Phthalate	2000	IU
205-99-2	Benzo(b)Fluoranthene	26000	IE
207-08-9	Benzo(k)Fluoranthene	2000	IU
50-32-8	Benzo(a)Pyrene	8800	I
193-39-5	Indeno(1,2,3-cd)Pyrene	4200	I
53-70-3	Dibenz(a,h)Anthracene	1500	IJ
191-24-2	Benzo(g,h,i)Perylene	3800	I

(1) - Cannot be separated from Diphenylamine

1413

FORM 1 SV-2

3/90

8580000A

AR000325

13
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS Contract: 68D10084
 Lab Code: ENVSYS Case No.: 30101 SAS No.: SDG No.: CKW20
 Matrix: (soil/water) SOIL Lab Sample ID: 93060864
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 30608640
 Level: (low/med) LOW Date Received: 06/03/93
 % Moisture: 19 decanted: (Y/N) N Date Extracted: 06/11/93
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 06/30/93
 Injection Volume: 2.0 (uL) Dilution Factor: 25.0
 GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	10000	IU
111-44-4	bis(2-Chloroethyl)Ether	10000	IU
95-57-8	2-Chlorophenol	10000	IU
541-73-1	1,3-Dichlorobenzene	10000	IU
106-46-7	1,4-Dichlorobenzene	10000	IU
95-50-1	1,2-Dichlorobenzene	10000	IU
95-48-7	2-Methylphenol	10000	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	10000	IU
106-44-5	4-Methylphenol	10000	IU
621-64-7	N-Nitroso-Di-n-Propylamine	10000	IU
67-72-1	Hexachloroethane	10000	IU
98-95-3	Nitrobenzene	10000	IU
78-39-1	Isophorone	10000	IU
88-75-5	2-Nitrophenol	10000	IU
105-67-9	2,4-Dimethylphenol	10000	IU
111-91-1	bis(2-Chloroethoxy)Methane	10000	IU
120-83-2	2,4-Dichlorophenol	10000	IU
120-82-1	1,2,4-Trichlorobenzene	10000	IU
91-20-3	Naphthalene	10000	IU
106-47-8	4-Chloroaniline	10000	IU
87-68-3	Hexachlorobutadiene	10000	IU
59-50-7	4-Chloro-3-Methylphenol	10000	IU
91-57-6	2-Methylnaphthalene	10000	IU
77-47-4	Hexachlorocyclopentadiene	10000	IU
88-06-2	2,4,6-Trichlorophenol	10000	IU
95-95-4	2,4,5-Trichlorophenol	25000	IU
91-58-7	2-Chloronaphthalene	10000	IU
88-74-4	2-Nitroaniline	25000	IU
131-11-3	Dimethylphthalate	10000	IU
208-96-8	Acenaphthylene	10000	IU
606-20-2	2,6-Dinitrotoluene	10000	IU
99-09-2	3-Nitroaniline	25000	IU
83-32-9	Acenaphthene	10000	IU

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW41DL

501-11

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060864

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060864D

Level: (low/med) LOW

Date Received: 06/23/93

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 25.0

GPC Cleanup: (Y/N) Y

pH: 6.9

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	25000	IU
100-02-7	4-Nitrophenol	25000	IU
132-64-9	Dibenzofuran	10000	IU
121-14-2	2,4-Dinitrotoluene	10000	IU
84-66-2	Diethylphthalate	10000	IU
7005-72-3	4-Chlorophenyl-phenylether	10000	IU
86-73-7	Fluorene	10000	IU
100-01-6	4-Nitroaniline	25000	IU
534-52-1	4,6-Dinitro-2-methylphenol	25000	IU
86-30-6	N-Nitrosodiphenylamine (1)	10000	IU
101-55-3	4-Bromophenyl-phenylether	10000	IU
118-74-1	Hexachlorobenzene	10000	IU
87-86-5	Pentachlorophenol	25000	IU
85-01-8	Phenanthrene	14000	ID
120-12-7	Anthracene	3400	IDJ
86-74-8	Carbazole	10000	IU
84-74-2	Di-n-Butylphthalate	10000	IU
206-44-0	Fluoranthene	20000	ID
129-00-0	Pyrene	13000	ID
85-68-7	Butylbenzylphthalate	10000	IU
91-94-1	3,3'-Dichlorobenzidine	10000	IU
56-55-3	Benzo(a)Anthracene	7600	IDJ
218-01-9	Chrysene	6000	IDJ
117-81-7	bis(2-Ethylhexyl)Phthalate	72000	ID
117-84-0	Di-n-Octyl Phthalate	10000	IU
205-99-2	Benzo(b)Fluoranthene	20000	ID
207-08-9	Benzo(k)Fluoranthene	10000	IU
50-32-8	Benzo(a)Pyrene	6700	IDJ
193-39-5	Indeno(1,2,3-cd)Pyrene	3900	IDJ
53-70-3	Dibenz(a,h)Anthracene	10000	IU
191-24-2	Benzo(g,h,i)Perylene	4100	IDJ

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

1502

3/90

888-0000

AR000327

14
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Soil 13

CKW43

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: S060849

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060849RE

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 06/29/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

G

108-95-2	Phenol	390	IU
111-44-4	bis(2-Chloroethyl)Ether	390	IU
95-57-8	2-Chlorophenol	390	IU
541-73-1	1,3-Dichlorobenzene	390	IU
106-46-7	1,4-Dichlorobenzene	390	IU
95-50-1	1,2-Dichlorobenzene	390	IU
95-48-7	2-Methylphenol	390	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	390	IU
106-44-3	4-Methylphenol	390	IU
621-64-7	N-Nitroso-Di-n-Propylamine	390	IU
67-72-1	Hexachloroethane	390	IU
98-95-3	Nitrobenzene	390	IU
78-59-1	Isophorone	390	IU
88-75-5	2-Nitrophenol	390	IU
103-67-9	2,4-Dimethylphenol	390	IU
111-91-1	bis(2-Chloroethoxy)Methane	390	IU
120-83-2	2,4-Dichlorophenol	390	IU
120-82-1	1,2,4-Trichlorobenzene	390	IU
91-20-3	Naphthalene	390	IU
106-47-8	4-Chloroaniline	390	IU
87-68-3	Hexachlorobutadiene	390	IU
59-50-7	4-Chloro-3-Methylphenol	390	IU
91-57-6	2-Methylnaphthalene	390	IU
77-47-4	Hexachlorocyclopentadiene	390	IU
88-06-2	2,4,6-Trichlorophenol	390	IU
95-95-4	2,4,5-Trichlorophenol	950	IU
91-58-7	2-Chloronaphthalene	390	IU
88-74-4	2-Nitroaniline	950	IU
131-11-3	Dimethylphthalate	390	IU
208-96-8	Acenaphthylene	390	IU
606-20-2	2,6-Dinitrotoluene	390	IU
99-09-2	3-Nitroaniline	950	IU
83-32-9	Acenaphthene	390	IU

504
3/6

1549

FORM 1 SV-1

3/90

TS8000A

AR000328

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 48D10084

CKW43

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: S040849

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: S040849RE

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 06/29/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	950	IU
100-02-7	4-Nitrophenol	950	IU
132-64-9	Dibenzofuran	390	IU
121-14-2	2,4-Dinitrotoluene	390	IU
84-66-2	Diethylphthalate	390	IU
7009-72-3	4-Chlorophenyl-phenylether	390	IU
86-73-7	Fluorene	390	IU
100-01-6	4-Nitroaniline	950	IU
534-52-1	4,6-Dinitro-2-methylphenol	950	IU
86-30-6	N-Nitrosodiphenylamine (1)	390	IU
101-55-3	4-Bromophenyl-phenylether	390	IU
118-74-1	Hexachlorobenzene	390	IU
87-86-5	Pentachlorophenol	950	IU
85-01-8	Phenanthrene	390	IU
120-12-7	Anthracene	390	IU
86-74-8	Carbazole	390	IU
84-74-2	Di-n-Butylphthalate	710	IB
206-44-0	Fluoranthene	270	IJ
129-00-0	Pyrene	160	IJ
85-68-7	Butylbenzylphthalate	390	IU
91-94-1	3,3'-Dichlorobenzidine	390	IU
56-55-3	Benzo(a)Anthracene	170	IJ
218-01-9	Chrysene	140	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	360	IJ
117-84-0	Di-n-Octyl Phthalate	390	IU
205-99-2	Benzo(b)Fluoranthene	520	I
207-08-9	Benzo(k)Fluoranthene	390	IU
50-32-8	Benzo(a)Pyrene	170	IJ
193-39-5	Indeno(1,2,3-cd)Pyrene	170	IJ
53-70-3	Dibenz(a,h)Anthracene	120	IJ
191-24-2	Benzo(g,h,i)Perylene	230	IJ

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1550 3/90

AR000329

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SEDI

CKW18

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSY3Case No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060874Sample wt/vol: 30.0 (g/mL) 0Lab File ID: 9060874RLevel: (low/med) LOWDate Received: 06/04/93% Moisture: 40 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/06/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	550	1U
111-44-4	bis(2-Chloroethyl)Ether	550	1U
95-57-8	2-Chlorophenol	550	1U
541-73-1	1,3-Dichlorobenzene	550	1U
106-46-7	1,4-Dichlorobenzene	550	1U
95-50-1	1,2-Dichlorobenzene	550	1U
95-48-7	2-Methylphenol	550	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	550	1U
106-44-5	4-Methylphenol	550	1U
621-64-7	N-Nitroso-Di-n-Propylamine	550	1U
67-72-1	Hexachloroethane	550	1U
98-95-3	Nitrobenzene	550	1U
78-59-1	Isophorone	550	1U
88-75-5	2-Nitrophenol	550	1U
105-67-9	2,4-Dimethylphenol	550	1U
111-91-1	bis(2-Chloroethoxy)Methane	550	1U
120-83-2	2,4-Dichlorophenol	550	1U
120-82-1	1,2,4-Trichlorobenzene	550	1U
91-20-3	Naphthalene	550	1U
106-47-8	4-Chloroaniline	550	1U
87-68-3	Hexachlorobutadiene	550	1U
59-50-7	4-Chloro-3-Methylphenol	550	1U
91-57-6	2-Methylnaphthalene	550	1U
77-47-4	Hexachlorocyclopentadiene	550	1U
88-06-2	2,4,6-Trichlorophenol	550	1U
95-95-4	2,4,5-Trichlorophenol	1300	1U
91-58-7	2-Chloronaphthalene	550	1U
88-74-4	2-Nitroaniline	1300	1U
131-11-3	Dimethylphthalate	550	1U
208-96-8	Acenaphthylene	550	1U
606-20-2	2,6-Dinitrotoluene	550	1U
99-09-2	3-Nitroaniline	1300	1U
83-32-9	Acenaphthene	550	1U

FORM I SV-1

AR000330

3/90
485

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CKW18

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060874Sample wt/vol: 30.0 (g/mL) gLab File ID: 5060874RLevel: (low/med) LOWDate Received: 06/04/93% Moisture: 40 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/06/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND		
51-25-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	550	U
121-14-2	2,4-Dinitrotoluene	550	U
84-66-2	Diethylphthalate	550	U
7005-72-3	4-Chlorophenyl-phenylether	550	U
86-73-7	Fluorene	550	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	550	U
101-55-3	4-Bromophenyl-phenylether	550	U
118-74-1	Hexachlorobenzene	550	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	650	
120-12-7	Anthracene	550	U
86-74-8	Carbazole	550	U
84-74-2	Di-n-Butylphthalate	2000	B
206-44-0	Fluoranthene	1400	
129-00-0	Pyrene	1000	
85-68-7	Butylbenzylphthalate	550	U
91-94-1	3,3'-Dichlorobenzidine	550	U
56-55-3	Benzo(a)Anthracene	590	
218-01-9	Chrysene	670	
117-81-7	bis(2-Ethylhexyl)Phthalate	880	
117-84-0	Di-n-Octyl Phthalate	550	U
205-99-2	Benzo(b)Fluoranthene	1400	
207-08-9	Benzo(k)Fluoranthene	550	U
50-32-8	Benzo(a)Pyrene	610	
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	550	U
191-24-2	Benzo(g,h,i)Perylene	610	

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

3/90

SE000000A

AR000331

486

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

SEP 2

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW19

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060875

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060875R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 44 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 300.0 (uL)

Date Analyzed: 07/06/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.

COMPOUND

108-95-2	Phenol	610	IU
111-44-4	bis(2-Chloroethyl)Ether	610	IU
95-57-8	2-Chlorophenol	610	IU
541-73-1	1,3-Dichlorobenzene	610	IU
106-46-7	1,4-Dichlorobenzene	610	IU
95-50-1	1,2-Dichlorobenzene	610	IU
95-48-7	2-Methylphenol	610	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	610	IU
106-44-5	4-Methylphenol	250	IJ
621-64-7	N-Nitroso-Di-n-Propylamine	610	IU
67-72-1	Hexachloroethane	610	IU
98-95-3	Nitrobenzene	610	IU
78-59-1	Isophorone	610	IU
88-75-5	2-Nitrophenol	610	IU
105-67-9	2,4-Dimethylphenol	610	IU
111-91-1	bis(2-Chloroethoxy)Methane	610	IU
120-83-2	2,4-Dichlorophenol	610	IU
120-82-1	1,2,4-Trichlorobenzene	610	IU
91-20-3	Naphthalene	610	IU
106-47-8	4-Chlorobaniline	610	IU
87-68-3	Hexachlorobutadiene	610	IU
59-50-7	4-Chloro-3-Methylphenol	610	IU
91-57-6	2-Methylnaphthalene	610	IU
77-47-4	Hexachlorocyclopentadiene	610	IU
88-06-2	2,4,6-Trichlorophenol	610	IU
95-95-4	2,4,5-Trichlorophenol	1500	IU
91-58-7	2-Chloronaphthalene	610	IU
88-74-4	2-Nitroaniline	1500	IU
131-11-3	Dimethylphthalate	610	IU
208-96-8	Acenaphthylene	610	IU
606-20-2	2,6-Dinitrotoluene	610	IU
99-09-2	3-Nitroaniline	1500	IU
83-32-9	Acenaphthene	610	IU

FORM I SV-1

3/90

188000RA

AR000332

549

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW19

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060875

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060875R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 46 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/06/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

G

51-28-3	2,4-Dinitrophenol	1500	IU
100-02-7	4-Nitrophenol	1500	IU
132-64-9	Dibenzofuran	610	IU
121-14-2	2,4-Dinitrotoluene	610	IU
84-66-2	Diethylphthalate	610	IU
7005-72-3	4-Chlorophenyl-phenylether	610	IU
86-73-7	Fluorene	610	IU
100-01-6	4-Nitroaniline	1500	IU
534-52-1	4,6-Dinitro-2-methylphenol	1500	IU
86-30-6	N-Nitrosodiphenylamine (1)	610	IU
101-55-3	4-Bromophenyl-phenylether	610	IU
118-74-1	Hexachlorobenzene	610	IU
87-86-5	Pentachlorophenol	1500	IU
85-01-8	Phenanthrene	670	I
120-12-7	Anthracene	610	IU
86-74-8	Carbazole	610	IU
84-74-2	Di-n-Butylphthalate	1000	IB
206-44-0	Fluoranthene	1500	I
129-00-0	Pyrene	1100	I
85-68-7	Butylbenzylphthalate	390	IJ
91-94-1	3,3'-Dichlorobenzidine	610	IU
56-55-3	Benzo(a)Anthracene	580	IJ
218-01-9	Chrysene	760	I
117-81-7	bis(2-Ethylhexyl)Phthalate	2300	I
117-84-0	Di-n-Octyl Phthalate	610	IU
205-99-2	Benzo(b)Fluoranthene	1700	I
207-08-9	Benzo(k)Fluoranthene	610	IU
50-32-8	Benzo(a)Pyrene	700	I
193-39-5	Indeno(1,2,3-cd)Pyrene	510	IJ
53-70-3	Dibenz(a,h)Anthracene	610	IU
191-24-2	Benzo(g,h,i)Perylene	600	IJ

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

3/90

AR000333

550

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

L. J. SAMPLE NO

SED 8

Lab Name: ENVIROSYSTEMSContract: 68010084

CKW23

SED 8

Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93040876Sample wt/vol: 30.0 (g/mL) GLab File ID: S060876Level: (low/med) LOWDate Received: 06/04/93% Moisture: 11 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 300.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.

COMPOUND

108-95-2	Phenol	370	IU
111-44-4	bis(2-Chloroethyl)Ether	370	IU
95-57-8	2-Chlorophenol	370	IU
541-73-1	1,3-Dichlorobenzene	370	IU
106-46-7	1,4-Dichlorobenzene	370	IU
95-50-1	1,2-Dichlorobenzene	370	IU
95-48-7	2-Methylphenol	370	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	370	IU
106-44-5	4-Methylphenol	370	IU
621-64-7	N-Nitroso-Di-n-Propylamine	370	IU
67-72-1	Hexachloroethane	370	IU
98-95-3	Nitrobenzene	370	IU
78-59-1	Isophorone	370	IU
88-75-5	2-Nitrophenol	370	IU
105-67-9	2,4-Dimethylphenol	370	IU
111-91-1	bis(2-Chloroethoxy)Methane	370	IU
120-83-2	2,4-Dichlorophenol	370	IU
120-82-1	1,2,4-Trichlorobenzene	370	IU
91-20-3	Naphthalene	370	IU
106-47-8	4-Chloroaniline	370	IU
87-68-3	Hexachlorobutadiene	370	IU
59-50-7	4-Chloro-3-Methylphenol	370	IU
91-57-6	2-Methylnaphthalene	370	IU
77-47-4	Hexachlorocyclopentadiene	370	IU
88-06-2	2,4,6-Trichlorophenol	370	IU
95-95-4	2,4,5-Trichlorophenol	900	IU
91-58-7	2-Chloronaphthalene	370	IU
88-74-4	2-Nitroaniline	900	IU
131-11-3	Dimethylphthalate	370	IU
208-96-8	Acenaphthylene	370	IU
606-20-2	2,6-Dinitrotoluene	370	IU
99-09-2	3-Nitroaniline	900	IU
83-32-9	Acenaphthene	370	IU

FORM I SV-1

3/90

8800109A

AR000334

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

LPM SAMPLE NO.

Lab Name: ENVIROSYSTEMSContract: 68D10084

CKW25

SED-8

Lab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060876Sample wt/vol: 30.0 (g/mL) GLab File ID: S060876Level: (low/med) LOWDate Received: 06/04/93% Moisture: 11 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.

COMPOUND

91-28-5	2,4-Dinitrophenol	900	IU
100-02-7	4-Nitrophenol	900	IU
132-64-9	Dibenzofuran	370	IU
121-14-2	2,4-Dinitrotoluene	370	IU
84-66-2	Diethylphthalate	370	IU
7005-72-3	4-Chlorophenyl-phenylether	370	IU
84-73-7	Fluorene	370	IU
100-01-6	4-Nitroaniline	900	IU
534-52-1	4,6-Dinitro-2-methylphenol	900	IU
84-30-6	N-Nitrosodiphenylamine (1)	370	IU
101-55-3	4-Bromophenyl-phenylether	370	IU
118-74-1	Hexachlorobenzene	370	IU
87-86-5	Pentachlorophenol	900	IU
85-01-8	Phenanthrene	130	IJ
120-12-7	Anthracene	370	IU
86-74-8	Carbazole	370	IU
84-74-2	Di-n-Butylphthalate	180	IU
206-44-0	Fluoranthene	200	IJ
129-00-0	Pyrene	170	IJ
85-68-7	Butylbenzylphthalate	370	IU
91-94-1	3,3'-Dichlorobenzidine	370	IU
56-55-3	Benzo(a)Anthracene	370	IU
218-01-9	Chrysene	370	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	4500	IE
117-84-0	Di-n-Octyl Phthalate	370	IU
205-99-2	Benzo(b)Fluoranthene	230	IJ
207-08-9	Benzo(k)Fluoranthene	370	IU
50-32-8	Benzo(a)Pyrene	370	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	370	IU
53-70-3	Dibenz(a,h)Anthracene	370	IU
191-24-2	Benzo(g,h,i)Perylene	370	IU

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

2000090A

AR000335

3/90

022

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CKW25DL

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW34Matrix: (soil/water) SOILLab Sample ID: 93060876Sample wt/vol: 30.0 (g/mL) 0Lab File ID: 50608760Level: (low/med) LOWDate Received: 06/04/93% Moisture: 11 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0 (uL)Dilution Factor: 2.0GPC Cleanup: (Y/N) YpH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
108-95-2	Phenol	740	IU
111-44-4	bis(2-Chloroethyl)Ether	740	IU
95-57-8	2-Chlorophenol	740	IU
541-73-1	1,3-Dichlorobenzene	740	IU
106-46-7	1,4-Dichlorobenzene	740	IU
95-50-1	1,2-Dichlorobenzene	740	IU
95-48-7	2-Methylphenol	740	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	740	IU
106-44-3	4-Methylphenol	740	IU
621-64-7	N-Nitroso-Di-n-Propylamine	740	IU
67-72-1	Hexachloroethane	740	IU
98-95-3	Nitrobenzene	740	IU
78-59-1	Isophorone	740	IU
88-75-5	2-Nitrophenol	740	IU
105-67-9	2,4-Dimethylphenol	740	IU
111-91-1	bis(2-Chloroethoxy)Methane	740	IU
120-83-2	2,4-Dichlorophenol	740	IU
120-82-1	1,2,4-Trichlorobenzene	740	IU
91-20-3	Naphthalene	740	IU
106-47-8	4-Chloroaniline	740	IU
87-68-3	Hexachlorobutadiene	740	IU
59-50-7	4-Chloro-3-Methylphenol	740	IU
91-57-6	2-Methylnaphthalene	740	IU
77-47-4	Hexachlorocyclopentadiene	740	IU
88-06-2	2,4,6-Trichlorophenol	740	IU
95-95-4	2,4,5-Trichlorophenol	1800	IU
91-58-7	2-Chloronaphthalene	740	IU
88-74-4	2-Nitroaniline	1800	IU
131-11-3	Dimethylphthalate	740	IU
208-96-8	Acenaphthylene	740	IU
606-20-2	2,6-Dinitrotoluene	740	IU
99-09-2	3-Nitroaniline	1800	IU
83-32-9	Acenaphthene	740	IU

FORM 1 SV-1

3/90

AR000336

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW23DL2

Lab Name: ENVIROSYSTEMS

Contract: 68D10064

Lab Code: ENVSYS Case No.: 20101

SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060876

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: 5060876D

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 11 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

0

CAS NO.

COMPOUND

51-28-5	2,4-Dinitrophenol	1800	IU
100-02-7	4-Nitrophenol	1500	IU
132-64-9	Dibenzofuran	740	IU
121-14-2	2,4-Dinitrotoluene	740	IU
84-66-2	Diethylphthalate	740	IU
7005-72-3	4-Chlorophenyl-phenylether	740	IU
86-73-7	Fluorene	740	IU
100-01-6	4-Nitroaniline	1800	IU
534-52-1	4,6-Dinitro-2-methylphenol	1800	IU
86-30-6	N-Nitrosodiphenylamine (1)	740	IU
101-55-3	4-Bromophenyl-phenylether	740	IU
118-74-1	Hexachlorobenzene	740	IU
87-86-5	Pentachlorophenol	1800	IU
85-01-8	Phenanthrene	740	IU
120-12-7	Anthracene	740	IU
86-74-8	Carbazole	740	IU
84-74-2	Di-n-Butylphthalate	740	IU
206-44-0	Fluoranthene	740	IU
129-00-0	Pyrene	740	IU
85-68-7	Butylbenzylphthalate	740	IU
91-94-1	3,3'-Dichlorobenzidine	740	IU
56-55-3	Benzo(a)Anthracene	740	IU
218-01-9	Chrysene	740	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	4100	ID
117-84-0	Di-n-Octyl Phthalate	740	IU
205-99-2	Benzo(b)Fluoranthene	740	IU
207-08-9	Benzo(k)Fluoranthene	740	IU
50-32-8	Benzo(a)Pyrene	740	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	740	IU
53-70-3	Dibenz(a,h)Anthracene	740	IU
191-24-2	Benzo(g,h,i)Perylene	740	IU

325
5/12

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOIL 6

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW36
SOIL-10

Lab Code: ENVSYS Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060848

Sample wt/vol: 30.0 (g/mL) 9

Lab File ID: 5060848

Level: (low/med) LOW

Date Received: 06/03/93

% Moisture: 10 decanted: (Y/N) N

Date Extracted: 06/10/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 06/30/93

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

108-93-2	Phenol	370	1U
111-44-4	bis(2-Chloroethyl)Ether	370	1U
95-57-8	2-Chlorophenol	370	1U
541-73-1	1,3-Dichlorobenzene	370	1U
106-46-7	1,4-Dichlorobenzene	370	1U
95-50-1	1,2-Dichlorobenzene	370	1U
95-48-7	2-Methylphenol	370	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	1U
106-44-5	4-Methylphenol	370	1U
621-64-7	N-Nitroso-Di-n-Propylamine	370	1U
67-72-1	Hexachloroethane	370	1U
98-95-3	Nitrobenzene	370	1U
78-59-1	Isophorone	370	1U
88-75-5	2-Nitrophenol	370	1U
105-67-9	2,4-Dimethylphenol	370	1U
111-91-1	bis(2-Chloroethoxy)Methane	370	1U
120-83-2	2,4-Dichlorophenol	370	1U
120-82-1	1,2,4-Trichlorobenzene	370	1U
91-20-3	Naphthalene	370	1U
106-47-8	4-Chloroaniline	370	1U
87-68-3	Hexachlorobutadiene	370	1U
59-50-7	4-Chloro-3-Methylphenol	370	1U
91-57-6	2-Methylnaphthalene	370	1U
77-47-4	Hexachlorocyclopentadiene	370	1U
88-06-2	2,4,6-Trichlorophenol	370	1U
95-95-4	2,4,5-Trichlorophenol	890	1U
91-58-7	2-Chloronaphthalene	370	1U
88-74-4	2-Nitroaniline	890	1U
131-11-3	Dimethylphthalate	370	1U
208-96-8	Acenaphthylene	370	1U
606-20-2	2,6-Dinitrotoluene	370	1U
99-09-2	3-Nitroaniline	890	1U
83-32-9	Acenaphthene	370	1U

FORM I SV-1

3/90

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AR000338

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5/11

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

LPA SAMPLE NO.

Lab Name: ENVIROSYSTEMSContract: 68D10084

CKW36

Soil-LLab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060848Sample wt/vol: 30.0 (g/mL) GLab File ID: 5060848Level: (low/med) LOWDate Received: 06/03/93% Moisture: 10 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/30/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
51-28-5	2,4-Dinitrophenol	890	IU
100-02-7	4-Nitrophenol	890	IU
132-64-9	Dibenzofuran	370	IU
121-14-2	2,4-Dinitrotoluene	370	IU
84-66-2	Diethylphthalate	370	IU
7005-72-3	4-Chlorophenyl-phenylether	370	IU
86-73-7	Fluorene	370	IU
100-01-6	4-Nitroaniline	890	IU
534-52-1	4,6-Dinitro-2-methylphenol	890	IU
86-30-6	N-Nitrosodiphenylamine (1)	370	IU
101-55-3	4-Bromophenyl-phenylether	370	IU
118-74-1	Hexachlorobenzene	370	IU
87-86-5	Pentachlorophenol	890	IU
85-01-8	Phenanthrene	370	IU
120-12-7	Anthracene	370	IU
86-74-8	Carbazole	370	IU
84-74-2	Di-n-Butylphthalate	130	IU
206-44-0	Fluoranthene	370	IU
129-00-0	Pyrene	370	IU
85-68-7	Butylbenzylphthalate	370	IU
91-94-1	3,3'-Dichlorobenzidine	370	IU
56-55-3	Benzo(a)Anthracene	370	IU
218-01-9	Chrysene	370	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	370	IU
117-84-0	Di-n-Octyl Phthalate	370	IU
205-99-2	Benzo(b)Fluoranthene	170	IU
207-08-9	Benzo(k)Fluoranthene	370	IU
50-32-8	Benzo(a)Pyrene	370	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	370	IU
53-70-3	Dibenz(a,h)Anthracene	370	IU
191-24-2	Benzo(g,h,i)Perylene	370	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000339

3/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CKW36RE

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060848Sample wt/vol: 30.0 (g/mL) 0Lab File ID: 5060848RLevel: (low/med) LOWDate Received: 06/03/93% Moisture: 10 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/30/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.

COMPOUND

108-95-2	Phenol	370	IU
111-44-4	bis(2-Chloroethyl)Ether	370	IU
95-57-8	2-Chlorophenol	370	IU
541-73-1	1,3-Dichlorobenzene	370	IU
106-46-7	1,4-Dichlorobenzene	370	IU
95-50-1	1,2-Dichlorobenzene	370	IU
95-48-7	2-Methylphenol	370	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	370	IU
106-44-3	4-Methylphenol	370	IU
621-64-7	N-Nitroso-Di-n-Propylamine	370	IU
67-72-1	Hexachloroethane	370	IU
98-95-3	Nitrobenzene	370	IU
78-59-1	Isophorone	370	IU
88-75-5	2-Nitrophenol	370	IU
105-67-9	2,4-Dimethylphenol	370	IU
111-91-1	bis(2-Chloroethoxy)Methane	370	IU
120-83-2	2,4-Dichlorophenol	370	IU
120-82-1	1,2,4-Trichlorobenzene	370	IU
91-20-3	Naphthalene	370	IU
106-47-8	4-Chloroaniline	370	IU
87-68-3	Hexachlorobutadiene	370	IU
59-50-7	4-Chloro-3-Methylphenol	370	IU
91-57-6	2-Methylnaphthalene	370	IU
77-47-4	Hexachlorocyclopentadiene	370	IU
88-06-2	2,4,6-Trichlorophenol	370	IU
95-95-4	2,4,5-Trichlorophenol	890	IU
91-58-7	2-Chloronaphthalene	370	IU
88-74-4	2-Nitroaniline	890	IU
131-11-3	Dimethylphthalate	370	IU
208-96-8	Acenaphthylene	370	IU
606-20-2	2,6-Dinitrotoluene	370	IU
99-09-2	3-Nitroaniline	890	IU
83-32-9	Acenaphthene	370	IU

FORM I SV-1

AR000340

3/90

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

L.A. SAMPLE NO.

CKW36RE

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060848Sample wt/vol: 30.0 (g/mL) GLab File ID: S060848RLevel: (low/med) LOWDate Received: 06/03/93% Moisture: 10 decanted: (Y/N) NDate Extracted: 06/10/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 06/30/93Injection Volume: 2.0(uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	g
51-28-5	2,4-Dinitrophenol	890	IU
100-02-7	4-Nitrophenol	890	IU
132-64-9	Dibenzofuran	370	IU
121-14-2	2,4-Dinitrotoluene	370	IU
84-66-2	Diethylphthalate	370	IU
7005-72-3	4-Chlorophenyl-phenylether	370	IU
84-73-7	Fluorene	370	IU
100-01-6	4-Nitroaniline	890	IU
534-52-1	4,6-Dinitro-2-methylphenol	890	IU
84-30-6	N-Nitrosodiphenylamine (1)	370	IU
101-55-3	4-Bromophenyl-phenylether	370	IU
118-74-1	Hexachlorobenzene	370	IU
87-86-5	Pentachlorophenol	890	IU
85-01-8	Phenanthrene	370	IU
120-12-7	Anthracene	370	IU
86-74-8	Carbazole	370	IU
84-74-2	Di-n-Butylphthalate	140	IU
206-44-0	Fluoranthene	370	IU
129-00-0	Pyrene	370	IU
85-68-7	Butylbenzylphthalate	370	IU
91-94-1	3,3'-Dichlorobenzidine	370	IU
56-55-3	Benzo(a)Anthracene	370	IU
218-01-9	Chrysene	370	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	370	IU
117-84-0	Di-n-Octyl Phthalate	370	IU
205-99-2	Benzo(b)Fluoranthene	160	IU
207-08-9	Benzo(k)Fluoranthene	370	IU
50-32-8	Benzo(a)Pyrene	370	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	370	IU
53-70-3	Dibenz(a,h)Anthracene	370	IU
191-24-2	Benzo(g,h,i)Perylene	370	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

AR000341

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SFA SAMPLE NO.

Soil 7

CKW37

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060877Sample wt/vol: 30.0 (g/mL) 9Lab File ID: 9060877Level: (low/med) LOWDate Received: 06/04/93% Moisture: 18 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 300.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 7.3CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

108-95-2	Phenol	400	1U
111-44-4	bis(2-Chloroethyl)Ether	400	1U
95-57-8	2-Chlorophenol	400	1U
341-73-1	1,3-Dichlorobenzene	400	1U
106-46-7	1,4-Dichlorobenzene	400	1U
95-50-1	1,2-Dichlorobenzene	400	1U
95-48-7	2-Methylphenol	400	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	1U
106-44-5	4-Methylphenol	400	1U
621-64-7	N-Nitroso-Di-n-Propylamine	400	1U
67-72-1	Hexachloroethane	400	1U
98-95-3	Nitrobenzene	400	1U
78-59-1	Isophorone	400	1U
88-75-5	2-Nitrophenol	400	1U
105-67-9	2,4-Dimethylphenol	400	1U
111-91-1	bis(2-Chloroethoxy)Methane	400	1U
120-83-2	2,4-Dichlorophenol	400	1U
120-82-1	1,2,4-Trichlorobenzene	400	1U
91-20-3	Naphthalene	400	1U
106-47-8	4-Chloroaniline	400	1U
87-68-3	Hexachlorobutadiene	400	1U
59-50-7	4-Chloro-3-Methylphenol	400	1U
91-57-6	2-Methylnaphthalene	400	1U
77-47-4	Hexachlorocyclopentadiene	400	1U
88-06-2	2,4,6-Trichlorophenol	400	1U
95-95-4	2,4,5-Trichlorophenol	980	1U
91-58-7	2-Chloronaphthalene	400	1U
88-74-4	2-Nitroaniline	980	1U
131-11-3	Dimethylphthalate	400	1U
208-96-8	Acenaphthylene	400	1U
606-20-2	2,6-Dinitrotoluene	400	1U
99-09-2	3-Nitroaniline	980	1U
83-32-9	Acenaphthene	400	1U

FORM I, SV-1

3/90

AR000342

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW37

Lab Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060877

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060877

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	980	IU
100-02-7	4-Nitrophenol	980	IU
132-64-9	Dibenzofuran	400	IU
121-14-2	2,4-Dinitrotoluene	400	IU
84-66-2	Diethylphthalate	400	IU
7005-72-3	4-Chlorophenyl-phenylether	400	IU
86-73-7	Fluorene	400	IU
100-01-6	4-Nitroaniline	980	IU
534-52-1	4,6-Dinitro-2-methylphenol	980	IU
86-30-6	N-Nitrosodiphenylamine (1)	400	IU
101-55-3	4-Bromophenyl-phenylether	400	IU
118-74-1	Hexachlorobenzene	400	IU
87-86-5	Pentachlorophenol	980	IU
85-01-8	Phenanthrene	640	I
120-12-7	Anthracene	400	IU
86-74-8	Carbazole	400	IU
84-74-2	Di-n-Butylphthalate	2000	IB
206-44-0	Fluoranthene	570	I
129-00-0	Pyrene	450	I
85-68-7	Butylbenzylphthalate	180	IJ
91-94-1	3,3'-Dichlorobenzidine	400	IU
56-55-3	Benzo(a)Anthracene	150	IJ
218-01-9	Chrysene	160	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	I
117-84-0	Di-n-Octyl Phthalate	400	IU
205-99-2	Benzo(b)Fluoranthene	460	I
207-08-9	Benzo(k)Fluoranthene	400	IU
50-32-8	Benzo(a)Pyrene	400	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	400	IU
53-70-3	Dibenz(a,h)Anthracene	400	IU
191-24-2	Benzo(g,h,i)Perylene	400	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000343

3/90

18
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS Contract: 68010084 CKW37RE

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060877

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9060877R

Level: (low/med) LOW Date Received: 06/04/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 07/06/93

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG g

CAS NO.	COMPOUND		
108-95-2	Phenol	2000	IU
111-44-4	bis(2-Chloroethyl)Ether	2000	IU
95-57-8	2-Chlorophenol	2000	IU
541-73-1	1,3-Dichlorobenzene	2000	IU
106-46-7	1,4-Dichlorobenzene	2000	IU
95-50-1	1,2-Dichlorobenzene	2000	IU
95-48-7	2-Methylphenol	2000	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	2000	IU
106-44-5	4-Methylphenol	2000	IU
621-64-7	N-Nitroso-Di-n-Propylamine	2000	IU
67-72-1	Hexachloroethane	2000	IU
98-95-3	Nitrobenzene	2000	IU
78-59-1	Isophorone	2000	IU
88-75-5	2-Nitrophenol	2000	IU
103-67-9	2,4-Dimethylphenol	2000	IU
111-91-1	bis(2-Chloroethoxy)Methane	2000	IU
120-83-2	2,4-Dichlorophenol	2000	IU
120-82-1	1,2,4-Trichlorobenzene	2000	IU
91-20-3	Naphthalene	2000	IU
106-47-8	4-Chloroaniline	2000	IU
87-68-3	Hexachlorobutadiene	2000	IU
59-50-7	4-Chloro-3-Methylphenol	2000	IU
91-57-6	2-Methylnaphthalene	2000	IU
77-47-4	Hexachlorocyclopentadiene	2000	IU
88-06-2	2,4,6-Trichlorophenol	2000	IU
95-95-4	2,4,5-Trichlorophenol	4900	IU
91-58-7	2-Chloronaphthalene	2000	IU
88-74-4	2-Nitroaniline	4900	IU
131-11-3	Dimethylphthalate	2000	IU
208-96-8	Acenaphthylene	2000	IU
606-20-2	2,6-Dinitrotoluene	2000	IU
99-09-2	3-Nitroaniline	4900	IU
83-32-9	Acenaphthene	2000	IU

FORM I SV-1

AR000344

3/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW37RE

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060877

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060877R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/06/93

Injection Volume: 2.0 (uL)

Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	4900	IU
100-02-7	4-Nitrophenol	4900	IU
132-64-9	Dibenzofuran	2000	IU
121-14-2	2,4-Dinitrotoluene	2000	IU
84-66-2	Diethylphthalate	2000	IU
7005-72-3	4-Chlorophenyl-phenylether	2000	IU
86-73-7	Fluorene	2000	IU
100-01-6	4-Nitroaniline	4900	IU
534-52-1	4,6-Dinitro-2-methylphenol	4900	IU
86-30-6	N-Nitrosodiphenylamine (1)	2000	IU
101-55-3	4-Bromophenyl-phenylether	2000	IU
118-74-1	Hexachlorobenzene	2000	IU
87-86-5	Pentachlorophenol	4900	IU
85-01-8	Phenanthrene	2000	IU
120-12-7	Anthracene	2000	IU
86-74-8	Carbazole	2000	IU
84-74-2	Di-n-Butylphthalate	1400	IBJ
206-44-0	Fluoranthene	2000	IU
129-00-0	Pyrene	2000	IU
85-68-7	Butylbenzylphthalate	2000	IU
91-94-1	3,3'-Dichlorobenzidine	2000	IU
56-55-3	Benzo(a)Anthracene	2000	IU
218-01-9	Chrysene	2000	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	1100	IJ
117-84-0	Di-n-Octyl Phthalate	2000	IU
205-99-2	Benzo(b)Fluoranthene	2000	IU
207-08-9	Benzo(k)Fluoranthene	2000	IU
50-32-8	Benzo(a)Pyrene	2000	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	2000	IU
53-70-3	Dibenz(a,h)Anthracene	2000	IU
191-24-2	Benzo(g,h,i)Perylene	2000	IU

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

AR000345

3/90

888

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 12

CKW42

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060865

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S060865R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/06/93

Injection Volume: 2.0 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	g
108-95-2	Phenol	3900	1U
111-44-4	bis(2-Chloroethyl)Ether	3900	1U
95-57-8	2-Chlorophenol	3900	1U
541-73-1	1,3-Dichlorobenzene	3900	1U
106-46-7	1,4-Dichlorobenzene	3900	1U
95-50-1	1,2-Dichlorobenzene	3900	1U
95-48-7	2-Methylphenol	3900	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	3900	1U
106-44-5	4-Methylphenol	3900	1U
621-64-7	N-Nitroso-Di-n-Propylamine	3900	1U
67-72-1	Hexachloroethane	3900	1U
98-95-3	Nitrobenzene	3900	1U
78-59-1	Isophorone	3900	1U
88-75-5	2-Nitrophenol	3900	1U
103-67-9	2,4-Dimethylphenol	3900	1U
111-91-1	bis(2-Chloroethoxy)Methane	3900	1U
120-83-2	2,4-Dichlorophenol	3900	1U
120-82-1	1,2,4-Trichlorobenzene	3900	1U
91-20-3	Naphthalene	3900	1U
106-47-8	4-Chloroaniline	3900	1U
87-68-3	Hexachlorobutadiene	3900	1U
59-50-7	4-Chloro-3-Methylphenol	3900	1U
91-57-6	2-Methylnaphthalene	3900	1U
77-47-4	Hexachlorocyclopentadiene	3900	1U
88-06-2	2,4,6-Trichlorophenol	3900	1U
95-95-4	2,4,5-Trichlorophenol	9500	1U
91-58-7	2-Chloronaphthalene	3900	1U
88-74-4	2-Nitroaniline	9500	1U
131-11-3	Dimethylphthalate	3900	1U
208-96-8	Acenaphthylene	3900	1U
606-20-2	2,6-Dinitrotoluene	3900	1U
99-09-2	3-Nitroaniline	9500	1U
83-32-9	Acenaphthene	3900	1U

FORM I SV-1

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10"
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW42

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060865

Sample wt/vol: 30.0 (g/mL) 0

Lab File ID: 5060865R

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/06/93

Injection Volume: 2.0 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

g

CAS NO.	COMPOUND		
51-28-3	2,4-Dinitrophenol	9500	IU
100-02-7	4-Nitrophenol	9500	IU
132-64-9	Dibenzofuran	3900	IU
121-14-2	2,4-Dinitrotoluene	3900	IU
84-66-2	Diethylphthalate	3900	IU
7005-72-3	4-Chlorophenyl-phenylether	3900	IU
84-73-7	Fluorene	3900	IU
100-01-6	4-Nitroaniline	9500	IU
534-52-1	4,6-Dinitro-2-methylphenol	9500	IU
84-30-6	N-Nitrosodiphenylamine (1)	3900	IU
101-55-3	4-Bromophenyl-phenylether	3900	IU
118-74-1	Hexachlorobenzene	3900	IU
87-84-5	Pentachlorophenol	9500	IU
85-01-8	Phenanthrene	1600	IJ
120-12-7	Anthracene	3900	IU
84-74-8	Carbazole	3900	IU
84-74-2	Di-n-Butylphthalate	3900	IU
206-44-0	Fluoranthene	3400	IJ
129-00-0	Pyrene	2000	IJ
85-68-7	Butylbenzylphthalate	3900	IU
91-94-1	3,3'-Dichlorobenzidine	3900	IU
56-55-3	Benzo(a)Anthracene	1300	IJ
218-01-9	Chrysene	3900	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	3900	IU
117-84-0	Di-n-Octyl Phthalate	3900	IU
205-99-2	Benzo(b)Fluoranthene	3000	IJ
207-08-9	Benzo(k)Fluoranthene	3900	IU
50-32-8	Benzo(a)Pyrene	3900	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	3900	IU
53-70-3	Dibenz(a,h)Anthracene	3900	IU
191-24-2	Benzo(g,h,i)Perylene	3900	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

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SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW42RE

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060865

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 9060865

Level: (low/med) LOW

Date Received: 06/04/93

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y

pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.

COMPOUND

108-95-2	Phenol	20000	IU
111-44-4	bis(2-Chloroethyl)Ether	20000	IU
95-57-8	2-Chlorophenol	20000	IU
541-73-1	1,3-Dichlorobenzene	20000	IU
106-46-7	1,4-Dichlorobenzene	20000	IU
95-50-1	1,2-Dichlorobenzene	20000	IU
95-48-7	2-Methylphenol	20000	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	20000	IU
106-44-5	4-Methylphenol	20000	IU
621-64-7	N-Nitroso-Di-n-Propylamine	20000	IU
67-72-1	Hexachloroethane	20000	IU
98-95-3	Nitrobenzene	20000	IU
78-59-1	Isophorone	20000	IU
88-75-5	2-Nitrophenol	20000	IU
105-67-9	2,4-Dimethylphenol	20000	IU
111-91-1	bis(2-Chloroethoxy)Methane	20000	IU
120-83-2	2,4-Dichlorophenol	20000	IU
120-82-1	1,2,4-Trichlorobenzene	20000	IU
91-20-3	Naphthalene	20000	IU
106-47-8	4-Chloroaniline	20000	IU
87-68-3	Hexachlorobutadiene	20000	IU
59-50-7	4-Chloro-3-Methylphenol	20000	IU
91-57-6	2-Methylnaphthalene	20000	IU
77-47-4	Hexachlorocyclopentadiene	20000	IU
88-06-2	2,4,6-Trichlorophenol	20000	IU
95-95-4	2,4,5-Trichlorophenol	48000	IU
91-58-7	2-Chloronaphthalene	20000	IU
88-74-4	2-Nitroaniline	48000	IU
131-11-3	Dimethylphthalate	20000	IU
208-96-8	Acenaphthylene	20000	IU
606-20-2	2,6-Dinitrotoluene	20000	IU
99-09-2	3-Nitroaniline	48000	IU
83-32-9	Acenaphthene	20000	IU

FORM I SV-1

3/90

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CKW42RE

Lab Name: ENVIROSYSTEMSContract: 68D10064Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060865Sample wt/vol: 30.0 (g/mL) GLab File ID: 5060865Level: (low/med) LOWDate Received: 06/04/93% Moisture: 16 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0(uL)Dilution Factor: 50.0GPC Cleanup: (Y/N) Y pH: 7.3

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
51-28-5	2,4-Dinitrophenol	48000	IU
100-02-7	4-Nitrophenol	48000	IU
132-64-9	Dibenzofuran	20000	IU
121-14-2	2,4-Dinitrotoluene	20000	IU
84-66-2	Diethylphthalate	20000	IU
7005-72-3	4-Chlorophenyl-phenylether	20000	IU
86-73-7	Fluorene	20000	IU
100-01-6	4-Nitroaniline	48000	IU
534-52-1	4,6-Dinitro-2-methylphenol	48000	IU
86-30-6	N-Nitrosodiphenylamine (1)	20000	IU
101-55-3	4-Bromophenyl-phenylether	20000	IU
118-74-1	Hexachlorobenzene	20000	IU
87-86-5	Pentachlorophenol	48000	IU
85-01-8	Phenanthrene	20000	IU
120-12-7	Anthracene	20000	IU
86-74-8	Carbazole	20000	IU
84-74-2	Di-n-Butylphthalate	20000	IU
206-44-0	Fluoranthene	20000	IU
129-00-0	Pyrene	20000	IU
85-68-7	Butylbenzylphthalate	20000	IU
91-94-1	3,3'-Dichlorobenzidine	20000	IU
56-55-3	Benzo(a)Anthracene	20000	IU
218-01-9	Chrysene	20000	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	20000	IU
117-84-0	Di-n-Octyl Phthalate	20000	IU
205-99-2	Benzo(b)Fluoranthene	20000	IU
207-08-9	Benzo(k)Fluoranthene	20000	IU
50-32-8	Benzo(a)Pyrene	20000	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	20000	IU
53-70-3	Dibenz(a,h)Anthracene	20000	IU
191-24-2	Benzo(g,h,i)Perylene	20000	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

AR000349

Soil 14

CKW60

Lab Name: ENVIROSYSTEMS Contract: 63D10084

Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36

Matrix: (soil/water) SOIL Lab Sample ID: 93060866

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S060866

Level: (low/med) LCW Date Received: 06/04/93

% Moisture: 39 decanted: (Y/N) N Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 07/02/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/KG</u>	G
108-95-2	Phenol	540	1U
111-44-4	bis(2-Chloroethyl)Ether	540	1U
95-57-8	2-Chlorophenol	540	1U
541-73-1	1,3-Dichlorobenzene	540	1U
106-46-7	1,4-Dichlorobenzene	540	1U
95-50-1	1,2-Dichlorobenzene	540	1U
95-48-7	2-Methylphenol	540	1U
108-60-1	2,2'-oxybis(1-Chloropropane)	540	1U
106-44-5	4-Methylphenol	540	1U
621-64-7	N-Nitroso-Di-n-Propylamine	540	1U
67-72-1	Hexachloroethane	540	1U
98-95-3	Nitrobenzene	540	1U
78-39-1	Isophorone	540	1U
88-75-5	2-Nitrophenol	540	1U
105-67-9	2,4-Dimethylphenol	540	1U
111-91-1	bis(2-Chloroethoxy)Methane	540	1U
120-83-2	2,4-Dichlorophenol	540	1U
120-82-1	1,2,4-Trichlorobenzene	540	1U
91-20-3	Naphthalene	540	1U
106-47-8	4-Chloroaniline	540	1U
87-68-3	Hexachlorobutadiene	540	1U
59-50-7	4-Chloro-3-Methylphenol	540	1U
91-37-6	2-Methylnaphthalene	540	1U
77-47-4	Hexachlorocyclopentadiene	540	1U
88-06-2	2,4,6-Trichlorophenol	540	1U
95-95-4	2,4,5-Trichlorophenol	1300	1U
91-58-7	2-Chloronaphthalene	540	1U
88-74-4	2-Nitroaniline	1300	1U
131-11-3	Dimethylphthalate	540	1U
208-96-8	Acenaphthylene	540	1U
606-20-2	2,6-Dinitrotoluene	540	1U
99-09-2	3-Nitroaniline	1300	1U
83-32-9	Acenaphthene	540	1U

FORM I SV-1

3/90

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFA SAMPLE NO.

Lab Name: ENVIROSYSTEMSContract: 68D10084

CKW60-

SD/L-14

Lab. Code: ENVSYSCase No.: 20101SAS No.: SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93040866Sample wt/vol: 30.0 (g/mL) GLab File ID: 5060866Level: (low/med) LOWDate Received: 06/04/93% Moisture: 39 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0(uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 6.9

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	G
51-28-5	2,4-Dinitrophenol	1300	IU
100-02-7	4-Nitrophenol	1300	IU
132-64-9	Dibenzofuran	540	IU
121-14-2	2,4-Dinitrotoluene	540	IU
84-66-2	Diethylphthalate	540	IU
7005-72-3	4-Chlorophenyl-phenylether	540	IU
86-73-7	Fluorene	540	IU
100-01-6	4-Nitroaniline	1300	IU
534-52-1	4,6-Dinitro-2-methylphenol	1300	IU
86-30-6	N-Nitrosodiphenylamine (1)	540	IU
101-55-3	4-Bromophenyl-phenylether	540	IU
118-74-1	Hexachlorobenzene	540	IU
87-86-5	Pentachlorophenol	1300	IU
85-01-8	Phenanthrene	540	IU
120-12-7	Anthracene	540	IU
86-74-8	Carbazole	540	IU
84-74-2	Di-n-Butylphthalate	540	IU
206-44-0	Fluoranthene	540	IU
129-00-0	Pyrene	540	IU
85-68-7	Butylbenzylphthalate	540	IU
91-94-1	3,3'-Dichlorobenzidine	540	IU
54-55-3	Benzo(a)Anthracene	310	IU
218-01-9	Chrysene	290	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	250	IU
117-84-0	Di-n-Octyl Phthalate	540	IU
205-99-2	Benzo(b)Fluoranthene	760	IU
207-08-9	Benzo(k)Fluoranthene	540	IU
50-32-8	Benzo(a)Pyrene	350	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	260	IU
53-70-3	Dibenz(a,h)Anthracene	540	IU
191-24-2	Benzo(g,h,i)Perylene	410	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000351

3/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 15

CKW61

Lab Name: ENVIROSYSTEMSContract: 68D10084Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060867Sample wt/vol: 30.0 (g/mL) GLab File ID: 9060867Level: (low/med) LOWDate Received: 06/04/93% Moisture: 25 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/02/93Injection Volume: 2.0 (uL)Dilution Factor: 9.0GPC Cleanup: (Y/N) YpH: 4.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
108-95-2	Phenol	2200	IU
111-44-4	bis(2-Chloroethyl)Ether	2200	IU
95-97-8	2-Chlorophenol	2200	IU
541-73-1	1,3-Dichlorobenzene	2200	IU
106-46-7	1,4-Dichlorobenzene	2200	IU
95-50-1	1,2-Dichlorobenzene	2200	IU
95-48-7	2-Methylphenol	2200	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	2200	IU
106-44-3	4-Methylphenol	2200	IU
621-64-7	N-Nitroso-Di-n-Propylamine	2200	IU
67-72-1	Hexachloroethane	2200	IU
98-95-3	Nitrobenzene	2200	IU
78-59-1	Isophorone	2200	IU
88-75-5	2-Nitrophenol	2200	IU
105-67-9	2,4-Dimethylphenol	2200	IU
111-91-1	bis(2-Chloroethoxy)Methane	2200	IU
120-83-2	2,4-Dichlorophenol	2200	IU
120-82-1	1,2,4-Trichlorobenzene	2200	IU
91-20-3	Naphthalene	2200	IU
106-47-8	4-Chloroaniline	2200	IU
87-68-3	Hexachlorobutadiene	2200	IU
59-50-7	4-Chloro-3-Methylphenol	2200	IU
91-57-6	2-Methylnaphthalene	2200	IU
77-47-4	Hexachlorocyclopentadiene	2200	IU
88-06-2	2,4,6-Trichlorophenol	2200	IU
95-95-4	2,4,5-Trichlorophenol	5300	IU
91-58-7	2-Chloronaphthalene	2200	IU
88-74-4	2-Nitroaniline	5300	IU
131-11-3	Dimethylphthalate	2200	IU
208-96-8	Acenaphthylene	2200	IU
606-20-2	2,6-Dinitrotoluene	2200	IU
99-09-2	3-Nitroaniline	5300	IU
83-32-9	Acenaphthene	2200	IU

FORM I SV-1

3/90

158000RA

AR000352

086

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ENVIROSYSTEMS

Contract: 68D10084

CKW61

b Code: ENVSYS

Case No.: 20101

SAS No.: _____

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93060867

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 5060867

Level: (low/med) LCW

Date Received: 06/04/93

% Moisture: 25 decanted: (Y/N) N

Date Extracted: 06/11/93

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.0 (uL)

Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 4.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND		
51-28-5	2,4-Dinitrophenol	5300	IU
100-02-7	4-Nitrophenol	5300	IU
132-64-9	Dibenzofuran	2200	IU
121-14-2	2,4-Dinitrotoluene	2200	IU
84-66-2	Diethylphthalate	2200	IU
7005-72-3	4-Chlorophenyl-phenylether	2200	IU
86-73-7	Fluorene	2200	IU
100-01-6	4-Nitroaniline	5300	IU
534-52-1	4,6-Dinitro-2-methylphenol	5300	IU
86-30-6	N-Nitrosodiphenylamine (1)	2200	IU
101-55-3	4-Bromophenyl-phenylether	2200	IU
118-74-1	Hexachlorobenzene	2200	IU
87-86-5	Pentachlorophenol	5300	IU
85-01-8	Phenanthrene	2200	IU
120-12-7	Anthracene	2200	IU
86-74-8	Carbazole	2200	IU
84-74-2	Di-n-Butylphthalate	2200	IU
206-44-0	Fluoranthene	2200	IU
129-00-0	Pyrene	2200	IU
85-68-7	Butylbenzylphthalate	2200	IU
91-94-1	3,3'-Dichlorobenzidine	2200	IU
56-55-3	Benzo(a)Anthracene	2200	IU
218-01-9	Chrysene	2200	IU
117-81-7	bis(2-Ethylhexyl)Phthalate	2200	IU
117-84-0	Di-n-Octyl Phthalate	2200	IU
205-99-2	Benzo(b)Fluoranthene	2000	IJ
207-08-9	Benzo(k)Fluoranthene	2200	IU
50-32-8	Benzo(a)Pyrene	2200	IU
193-39-5	Indeno(1,2,3-cd)Pyrene	2200	IU
53-70-3	Dibenz(a,h)Anthracene	2200	IU
191-24-2	Benzo(g,h,i)Perylene	2200	IU

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

AR000353

3/90

529
341
952

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Soil 16

CKW62

Lab Name: ENVIROSYSTEMS Contract: 62D10034
Lab Code: ENVSYS Case No.: 20101 SAS No.: SDG No.: CKW36
Matrix: (soil/water) SOIL Lab Sample ID: 93060868
Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9060868
Level: (low/med) LOW Date Received: 06/04/93
% Moisture: 62 decanted: (Y/N) N Date Extracted: 06/11/93
Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 07/06/93
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH: 6.4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG G

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
108-95-2	Phenol	870	IU
111-44-4	bis(2-Chloroethyl)Ether	870	IU
95-57-8	2-Chlorophenol	870	IU
941-73-1	1,3-Dichlorobenzene	870	IU
106-46-7	1,4-Dichlorobenzene	870	IU
95-50-1	1,2-Dichlorobenzene	870	IU
95-48-7	2-Methylphenol	870	IU
108-60-1	2,2'-oxybis(1-Chloropropane)	870	IU
106-44-5	4-Methylphenol	870	IU
621-64-7	N-Nitroso-Di-n-Propylamine	870	IU
67-72-1	Hexachloroethane	870	IU
98-95-3	Nitrobenzene	870	IU
78-59-1	Isophorone	870	IU
88-75-5	2-Nitrophenol	870	IU
105-67-9	2,4-Dimethylphenol	870	IU
111-91-1	bis(2-Chloroethoxy)Methane	870	IU
120-83-2	2,4-Dichlorophenol	870	IU
120-82-1	1,2,4-Trichlorobenzene	870	IU
91-20-3	Naphthalene	870	IU
106-47-8	4-Chloroaniline	870	IU
87-68-3	Hexachlorobutadiene	870	IU
59-50-7	4-Chloro-3-Methylphenol	870	IU
91-57-6	2-Methylnaphthalene	870	IU
77-47-4	Hexachlorocyclopentadiene	870	IU
88-06-2	2,4,6-Trichlorophenol	870	IU
95-95-4	2,4,5-Trichlorophenol	2100	IU
91-58-7	2-Chloronaphthalene	870	IU
88-74-4	2-Nitroaniline	2100	IU
131-11-3	Dimethylphthalate	870	IU
208-96-8	Acenaphthylene	870	IU
606-20-2	2,6-Dinitrotoluene	870	IU
99-09-2	3-Nitroaniline	2100	IU
83-32-9	Acenaphthene	870	IU

FORM I SV-1

3/90

AR000354

342

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: ENVIROSYSTEMSContract: 68D10084

CKW62

SD-116

Lab Code: ENVSYSCase No.: 20101

SAS No.: _____

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060868Sample wt/vol: 30.0 (g/mL) GLab File ID: S060868Level: (low/med) LOWDate Received: 06/04/93% Moisture: 62 decanted: (Y/N) NDate Extracted: 06/11/93Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 07/06/93Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) YpH: 6.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	G
51-28-5	2,4-Dinitrophenol	2100	IU
100-02-7	4-Nitrophenol	2100	IU
132-64-9	Dibenzofuran	870	IU
121-14-2	2,4-Dinitrotoluene	870	IU
84-66-2	Diethylphthalate	870	IU
7005-72-3	4-Chlorophenyl-phenylether	870	IU
86-73-7	Fluorene	870	IU
100-01-6	4-Nitroaniline	2100	IU
534-52-1	4,6-Dinitro-2-methylphenol	2100	IU
86-30-6	N-Nitrosodiphenylamine (1)	870	IU
101-55-3	4-Bromophenyl-phenylether	870	IU
118-74-1	Hexachlorobenzene	870	IU
87-86-5	Pentachlorophenol	2100	IU
85-01-8	Phenanthrene	710	IJ
120-12-7	Anthracene	870	IU
86-74-8	Carbazole	870	IU
84-74-2	Di-n-Butylphthalate	1700	IB
206-44-0	Fluoranthene	1600	I
129-00-0	Pyrene	1100	I
85-68-7	Butylbenzylphthalate	870	IU
91-94-1	3,3'-Dichlorobenzidine	870	IU
56-55-3	Benzo(a)Anthracene	720	IJ
218-01-9	Chrysene	800	IJ
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	I
117-84-0	Di-n-Octyl Phthalate	870	IU
205-99-2	Benzo(b)Fluoranthene	2300	I
207-08-9	Benzo(k)Fluoranthene	870	IU
50-32-8	Benzo(a)Pyrene	930	I
193-39-5	Indeno(1,2,3-cd)Pyrene	740	IJ
53-70-3	Dibenz(a,h)Anthracene	870	IU
191-24-2	Benzo(g,h,i)Perylene	920	I

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

3/90

AR000355

8811

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED3

CKW20

Lab Name: ENVISYSYSTEMS

Contract: 68510084

Lab Code: ENVYSYS

Case No.: 20101

EAS No.:

EDG No.: CKW20

Matrix: (Soil/Water) SOIL

Lab Sample ID: 93040832

Sample Wt/Vol: 20.0 (g/mL) 5

Lab File ID:

% Moisture: 24 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SopF/Cont/Sonc) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/07/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: 7.7

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

319-84-6	alpha-BHC	2.31U
319-85-7	beta-BHC	2.31U
319-86-8	delta-BHC	2.31U
53-29-9	gamma-BHC (Lindane)	2.31U
75-44-5	Heptachlor	2.31U
309-00-2	Aldrin	2.31U
1024-37-3	Heptachlor epoxide	2.31U
953-29-3	Endosulfan I	2.31U
60-57-1	Dieldrin	5.71
72-53-9	1,4'-DDE	4.51U
72-20-8	Endrin	4.51U
33213-45-9	Endosulfan II	4.51U
72-54-8	4,4'-DDD	4.51U
1031-07-8	Endosulfan sulfate	4.51U
50-29-3	4,4'-DDT	4.51U
72-43-5	Methoxychlor	23 IU
53494-70-5	Endrin ketone	4.51U
7421-36-3	Endrin aldehyde	4.51U
5103-71-3	alpha-Chlordane	15
5103-74-3	gamma-Chlordane	14
8001-35-2	Toxaphene	230 IU
12674-11-2	Aroclor-1016	45 IU
11104-28-2	Aroclor-1221	91 IU
11141-16-5	Aroclor-1232	45 IU
53469-21-9	Aroclor-1242	45 IU
12672-29-6	Aroclor-1248	45 IU
11097-69-1	Aroclor-1254	45 IU
11096-82-5	Aroclor-1260	45 IU

FORM I PEST

AR000356

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SED 4

Lab Name: ENVIRONMENTAL

Contract: 42010084

CKW21
SF-4

Date: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 57040531

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 22 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SecF/Cont/SecC) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/07/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.4

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.

IMPURINE

Q

719-34-4-----alpha-BHC	2.4IU
719-35-7-----beta-BHC	2.4IU
719-36-3-----delta-BHC	2.4IU
55-39-9-----gamma-BHC (Lindane)	2.4IU
74-44-8-----Heptachlor	2.4IU
309-00-2-----Aldrin	2.4IU
1021-57-3-----Heptachlor epoxide	2.4IU
935-78-3-----Endosulfan I	2.4IU
60-57-1-----Disidrin	4.6IU
72-35-9-----4,4'-DDE	4.6IU
72-20-5-----Endrin	4.6IU
55213-65-9-----Endosulfan II	4.6IU
72-34-8-----4,4'-DDD	4.6IU
1031-07-8-----Endosulfan sulfate	4.6IU
50-29-3-----4,4'-DDT	4.6IU
72-43-5-----Methoxychlor	24 IU
53494-70-5-----Endrin ketone	4.6IU
7421-36-3-----Endrin aldehyde	4.6IU
5103-71-7-----alpha-Chlordane	6.6I
5103-74-8-----gamma-Chlordane	7.2I
8001-35-2-----Toxaphene	240 IU
12674-11-2-----Aroclor-1016	46 IU
11104-28-2-----Aroclor-1221	94 IU
11141-16-5-----Aroclor-1232	46 IU
53469-21-9-----Aroclor-1242	46 IU
12672-29-6-----Aroclor-1248	46 IU
11097-69-1-----Aroclor-1254	46 IU
11096-82-5-----Aroclor-1260	46 IU

10
PESTICIDE RESIDUE ANALYSIS DATA SHEET

EPA SAMPLE NO.

SEDS

ORIGINAL
CKW20

Lab Name: ENVISYSYSTEMS Contract: 42010084

Lab Code: ENVYS Case No.: 20101 SAS No.: SDG No.: CKW20

Matrix: (soil/water) SOIL Lab Sample ID: 93040835

Sample wt/vol: 20.0 (g/mL) G Lab File ID:

% Moisture: 40 corrected: (Y/N) N Date Received: 06/03/93

Extraction: (SapF/Cont: Conc) SCNC Date Extracted: 06/08/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CASE NO.

COMPOUND

Q

319-34-4-----alpha-BHC	3.3IU
319-35-7-----beta-BHC	3.3IU
319-34-8-----delta-BHC	3.3IU
58-29-0-----gamma-BHC (Lindane)	3.3IU
76-44-2-----heptachlor	3.3IU
309-00-2-----dieldrin	3.3IU
1004-37-3-----heptachlor epoxide	3.3IU
959-63-8-----Endosulfan I	3.3IU
60-37-1-----Dieldrin	6.5IU
72-12-4-----1,4'-DDE	6.5IU
72-20-8-----Endrin	6.5IU
33213-65-9-----Endosulfan II	6.5IU
72-34-8-----1,4'-DDD	6.5IU
1031-07-8-----Endosulfan sulfate	6.5IU
50-29-3-----4,4'-DDT	6.5IU
72-43-5-----Methoxychlor	33 IU
53494-70-5-----Endrin ketone	6.5IU
7421-36-1-----Endrin aldehyde	6.5IU
5103-71-1-----alpha-Chlordane	11.1
5103-74-1-----gamma-Chlordane	9.31
8001-35-2-----Toxaphene	330 IU
12574-11-2-----Aroclor-1016	65 IU
11104-28-2-----Aroclor-1221	130 IU
11141-16-5-----Aroclor-1232	65 IU
53469-21-9-----Aroclor-1242	65 IU
12572-39-4-----Aroclor-1248	65 IU
11097-69-1-----Aroclor-1254	65 IU
11096-82-3-----Aroclor-1260	65 IU

FORM I PEST

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4824

ID
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED6

Lab Name: ENVISYSTEMS

Contract: 68010084

CKW27

Case: ENV678

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: soil/water SD1

Lab Sample ID: 93060834

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 45 decanted: (Y/N) N

Date Received: 04/03/93

Extraction: (Soxh/Cont/Soxc) SONC

Date Extracted: 04/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 7.3

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

319-84-2	alpha-BHC	31	UU
519-85-7	beta-BHC	31	UU
519-86-8	delta-BHC	31	UU
52-29-9	gamma-BHC (Lindane)	31	UU
76-44-8	Heptachlor	31	UU
309-00-2	Aldrin	31	UU
1024-57-3	Heptachlor epoxide	31	UU
959-92-3	Endosulfan I	31	UU
60-57-1	Dieldrin	60	UU
72-55-9	1,4'-DDE	60	UU
72-20-8	Endrin	60	UU
35213-65-9	Endosulfan II	60	UU
72-54-8	4,4'-DDD	60	UU
1031-07-8	Endosulfan sulfate	60	UU
50-29-3	4,4'-DDT	60	UU
72-43-5	Methoxychlor	310	UU
53494-70-5	Endrin ketone	60	UU
7421-36-3	Endrin aldehyde	60	UU
5103-71-2	alpha-Chlordane	48	
5103-74-3	gamma-Chlordane	50	
8001-35-2	Toxaphene	3100	UU
12674-11-2	Aroclor-1016	600	UU
11104-28-2	Aroclor-1221	1200	UU
11141-16-5	Aroclor-1232	600	UU
53469-21-9	Aroclor-1242	600	UU
12672-29-6	Aroclor-1248	600	UU
11097-69-1	Aroclor-1254	600	UU
11096-62-5	Aroclor-1260	600	UU

FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED7

CKW24111

Lab Name: ENVIRONMENTAL

Contract: 48010084

Lab Code: ENV/SGV

Case No.: 00101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 070608ST

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 22 decanted: (Y/N) N

Date Received: 06/03/97

Extraction: (SoxH/Cont/SonC) SONC

Date Extracted: 06/08/97

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/97

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.3

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

SAS NO.

COMPOUND

2

019-34-4	alpha-BHC	2.3IU
019-35-7	beta-BHC	2.3IU
019-36-8	delta-BHC	2.3IU
02-39-9	gamma-BHC (Lindane)	2.3IU
76-44-8	Heptachlor	2.3IU
009-00-2	Aldrin	2.3IU
1024-37-3	Heptachlor epoxide	2.3IU
059-98-3	Endosulfan I	2.3IU
50-17-1	Dieldrin	4.5IU
72-35-3	4,4'-DDE	4.5IU
72-20-8	Endrin	4.5IU
00213-33-9	Endosulfan II	4.5IU
72-34-8	4,4'-DDD	4.5IU
1031-07-8	Endosulfan sulfate	4.5IU
50-29-3	4,4'-DDT	4.5IU
72-43-5	Methoxychlor	56
53494-70-3	Endrin ketone	4.5IU
7421-36-3	Endrin aldehyde	4.5IU
5103-71-3	alpha-Chlordane	12
5103-74-3	gamma-Chlordane	13
8001-35-2	Toxaphene	230 IU
12574-11-2	Aroclor-1016	45 IU
11104-28-2	Aroclor-1221	92 IU
11141-16-5	Aroclor-1232	45 IU
53469-21-9	Aroclor-1242	45 IU
12572-29-6	Aroclor-1248	45 IU
11097-69-1	Aroclor-1254	45 IU
11096-82-5	Aroclor-1260	45 IU

FORM 1 PEST

AR000360

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551 348
10/28

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED 9

CKW26 (10/10)

Lab Name: ENVISYSYSTEMS

Contract: 45010064

Code: ENVYSYS

Case No.: 20101

SAS No.:

SIG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93040832

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 22 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SoxH/Cont/Scnd) SGNC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.

COMPOUND

g

319-84-6	alpha-BHC	2.4IU
319-85-7	beta-BHC	2.4IU
319-86-2	delta-BHC	2.4IU
58-29-9	gamma-BHC (Lindane)	2.4IU
76-44-8	Heptachlor	2.4IU
309-00-2	Aldrin	2.4IU
1024-57-3	Heptachlor epoxide	2.4IU
959-72-2	Endosulfan I	2.4IU
60-57-1	Dieldrin	4.6IU
72-55-9	4,4'-DDE	4.6IU
72-20-6	Endrin	4.6IU
33213-65-9	Endosulfan II	4.6IU
72-54-8	4,4'-DDD	4.6IU
1031-07-8	Endosulfan sulfate	4.6IU
50-29-3	4,4'-DDT	4.6IU
72-43-5	Methoxychlor	24 IU
53494-70-5	Endrin ketone	4.6IU
7421-36-3	Endrin aldehyde	4.6IU
5103-71-2	alpha-Chlordane	10
5103-74-2	gamma-Chlordane	10
8001-35-2	Toxaphene	240 IU
12674-11-2	Aroclor-1016	46 IU
11104-28-2	Aroclor-1221	94 IU
11141-16-5	Aroclor-1232	46 IU
53469-21-9	Aroclor-1242	46 IU
12672-29-6	Aroclor-1248	46 IU
11097-69-1	Aroclor-1254	46 IU
11096-82-5	Aroclor-1260	46 IU

FORM I PEST

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PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED 10

CKW27

Lab Name: ENVISYSYSTEMS

Contract: SED10081

Lab Code: ENVYSYS

Case No.: 20101

SAS No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93040837

Sample wt/vol: 10.0 (g/mL) 2

Lab File ID:

% Moisture: 22 Decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SepF/Cont/Sonc) SGNC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.8

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

g

319-94-6	alpha-BHC	2.2IU
319-95-7	beta-BHC	2.2IU
319-96-8	delta-BHC	2.2IU
58-59-9	gamma-BHC (Lindane)	2.2IU
76-44-8	Heptachlor	2.2IU
307-00-2	Aldrin	2.2IU
1024-57-3	Heptachlor epoxide	2.2IU
959-58-8	Endosulfan I	2.2IU
60-57-1	Dieldrin	4.2IU
72-15-9	4,4'-DDE	4.2IU
72-20-3	Endrin	4.2IU
33213-65-9	Endosulfan II	4.2IU
72-54-8	4,4'-DDD	4.2IU
1031-07-8	Endosulfan sulfate	4.2IU
50-29-3	4,4'-DDT	4.2IU
72-43-5	Methoxychlor	22 IU
53494-70-5	Endrin ketone	4.2IU
7421-36-2	Endrin aldehyde	4.2IU
5103-71-2	alpha-Chlordane	2.2IU
3103-74-2	gamma-Chlordane	2.2IU
8001-35-2	Toxaphene	220 IU
12674-11-2	Aroclor-1016	42 IU
11104-28-2	Aroclor-1221	86 IU
11141-16-5	Aroclor-1232	42 IU
53469-21-9	Aroclor-1242	42 IU
12672-29-6	Aroclor-1248	42 IU
11097-69-1	Aroclor-1254	42 IU
11096-82-5	Aroclor-1260	42 IU

FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED 11

Lab Name: ENVISOSYSTEMS

Contract: 68D10084

 No. 11111
 CKW23
 SED-16

Date: ENVEYE

Case No.: 20121

SPS No.:

SED No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 67040840

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 25 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SepF/Cont/Sonc) GCNC

Date Extracted: 06/08/93

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.9

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

Q

CAS NO.

COMPOUND

319-84-4	alpha-BHC	2.3IU
319-85-7	beta-BHC	2.3IU
319-86-8	delta-BHC	2.3IU
55-29-9	gamma-BHC (Lindane)	2.3IU
75-44-3	Heptachlor	2.3IU
309-00-2	Aldrin	2.3IU
1024-57-3	Heptachlor epoxide	2.3IU
959-99-8	Endosulfan I	2.3IU
60-57-1	Dieldrin	4.4IU
72-55-9	4,4'-DDE	4.4IU
72-20-8	Endrin	4.4IU
33213-65-9	Endosulfan II	4.4IU
72-54-8	4,4'-DDD	4.4IU
1031-07-8	Endosulfan sulfate	4.4IU
50-29-3	4,4'-DDT	4.4IU
72-43-5	Methoxychlor	23 IU
53494-70-5	Endrin ketone	4.4IU
7421-36-3	Endrin aldehyde	4.4IU
5103-71-1	alpha-Chlordane	2.9I
5103-74-1	gamma-Chlordane	3.2IP
2001-35-2	Toxaphene	230 IU
12674-11-2	Aroclor-1016	44 IU
11104-28-2	Aroclor-1221	89 IU
11141-16-5	Aroclor-1232	44 IU
53469-21-9	Aroclor-1242	44 IU
12672-29-6	Aroclor-1248	44 IU
11097-69-1	Aroclor-1254	44 IU
11096-82-5	Aroclor-1260	44 IU

FORM 1 PEST

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1880

 351
 554

10
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED 12

CKW29

Lab Name: ENVISYSYSTEMS

Contract: 62D10084

Lab Code: ENVYSYS

Case No.: 00101

SAG No.:

SDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93060841

Sample wt/vol: 10.0 (g/mL) G

Lab File ID:

% Moisture: 15 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.7

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CASE NO.

COMPOUND

G

319-34-1-----alpha-BHC	2.11U
319-35-7-----beta-BHC	2.11U
319-36-3-----delta-BHC	2.11U
58-69-9-----gamma-BHC (Lindane)	2.11U
76-44-8-----Heptachlor	2.11U
309-00-2-----Aldrin	2.11U
1021-57-7-----Heptachlor epoxide	2.11U
959-33-3-----Endosulfan I	2.11U
50-57-1-----Dieldrin	4.11U
72-33-2-----4,4'-DDE	4.11U
72-30-2-----Endrin	4.11U
33213-45-9-----Endosulfan II	4.11U
72-34-8-----4,4'-DDD	4.11U
1031-07-9-----Endosulfan sulfate	4.11U
50-29-3-----4,4'-DDT	4.11U
72-43-5-----Methoxychlor	21 IU
53494-70-3-----Endrin ketone	4.11U
7421-36-3-----Endrin aldehyde	4.11U
5103-71-1-----alpha-Chlordane	2.11U
5103-74-1-----gamma-Chlordane	2.11U
8001-35-2-----Toxaphene	210 IU
12674-11-2-----Aroclor-1016	41 IU
11104-29-2-----Aroclor-1221	83 IU
11141-16-5-----Aroclor-1232	41 IU
53469-21-9-----Aroclor-1242	41 IU
12672-29-6-----Aroclor-1248	41 IU
11097-69-1-----Aroclor-1254	41 IU
11096-82-5-----Aroclor-1260	41 IU

352
555
4400

SED 13

CKW50

Lab Name: ENVISYSYSTEMS

Contract: 6SD10084

Lab Code: ENVSYS

Case No.: 00101

SAS No.:

SDG No.: CKW50

Matrix: (soil/water) SOIL

Lab Sample ID: 93040842

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 52 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SoxH/Cont/Boil) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.2

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

CAS NO.

COMPOUND

G

319-84-6	alpha-BHC	3.61U
319-85-7	beta-BHC	3.61U
319-86-8	gamma-BHC	3.61U
58-29-9	gamma-BHC (Lindane)	3.61U
75-44-8	Heptachlor	3.61U
309-00-2	Alorin	3.61U
1024-87-3	Heptachlor epoxide	3.61U
959-93-3	Endosulfan I	3.61U
60-57-1	Disicrin	7.01U
72-55-9	1,1'-DDE	7.01U
72-20-8	Endrin	7.01U
33213-65-9	Endosulfan II	7.01U
72-54-8	4,4'-DDD	7.01U
1031-07-8	Endosulfan sulfate	7.01U
50-29-3	4,4'-DDT	7.01U
72-43-5	Methoxychlor	36 IU
53494-70-5	Endrin ketone	7.01U
7421-36-3	Endrin aldehyde	7.01U
5103-71-4	alpha-Chlordane	3.61U
5103-74-5	gamma-Chlordane	3.61U
8001-35-2	Toxaphene	360 IU
12674-11-2	Aroclor-1016	70 IU
11104-28-2	Aroclor-1221	140 IU
11141-16-5	Aroclor-1232	70 IU
53469-21-9	Aroclor-1242	70 IU
12672-29-6	Aroclor-1248	70 IU
11097-69-1	Aroclor-1254	70 IU
11096-82-5	Aroclor-1260	70 IU

556 353

10
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Soil 1

CKW31

Lab Name: ENVISOC/STEMS

Contract: 68D10084

Lab Code: ENV/SGS

Case No.: 20101

SAS No.:

EDG No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93040843

Sample wt/vol: 10.0 (g/mL) g

Lab File ID:

% Moisture: 12 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SasF/Cont/Sonc) SCNC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 7.3

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/kg

Q

319-24-6-----	alpha-BHC	21	IU
319-85-7-----	beta-BHC	21	IU
319-86-8-----	delta-BHC	21	IU
58-99-6-----	gamma-BHC (Lindane)	21	IU
74-44-8-----	Heptachlor	21	IU
309-00-2-----	Aldrin	21	IU
1024-57-3-----	Heptachlor epoxide	21	IU
959-93-9-----	Endosulfan I	21	IU
60-57-1-----	Dieldrin	40	IU
72-55-2-----	4,4'-DDE	40	IU
72-20-8-----	Endrin	40	IU
33213-65-9-----	Endosulfan II	40	IU
72-54-8-----	4,4'-DDD	40	IU
1031-07-8-----	Endosulfan sulfate	40	IU
50-29-3-----	4,4'-DDT	40	IU
72-43-5-----	Methoxychlor	210	IU
53494-70-5-----	Endrin ketone	40	IU
7421-36-8-----	Endrin aldehyde	40	IU
5103-71-2-----	alpha-Chlordane	39	
5103-74-2-----	gamma-Chlordane	24	IP
8001-35-2-----	Toxaphene	2100	IU
12674-11-2-----	Aroclor-1016	400	IU
11104-28-2-----	Aroclor-1221	820	IU
11141-16-5-----	Aroclor-1232	400	IU
53469-21-9-----	Aroclor-1242	400	IU
12672-29-6-----	Aroclor-1248	400	IU
11097-69-1-----	Aroclor-1254	400	IU
11096-82-5-----	Aroclor-1260	400	IU

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Soil 2

Lab Name: ENVISYSYSTEMS

Contract: 42D10084

CKW32

Code: ENVSYS

Case No.: 20101

SAS No.:

SDS No.: CKW20

Matrix: (Soil/Water) SOIL

Lab Sample ID: 93040844

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 12 desiccated: (Y/N) N

Date Received: 06/03/93

Extraction: (GasF/Cont./Sonic) SONG

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 8.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

G

319-84-6-----alpha-BHC	19	IU
319-85-7-----beta-BHC	19	IU
319-86-9-----delta-BHC	19	IU
38-39-9-----gamma-BHC (Lindane)	19	IU
76-44-8-----Heptachlor	19	IU
309-00-2-----Aldrin	19	IU
1024-57-3-----Heptachlor epoxide	19	IU
959-98-9-----Endosulfan I	19	IU
60-57-1-----Dieldrin	37	IU
72-55-9-----4,4'-DDE	37	IU
72-20-8-----Endrin	37	IU
33213-65-9-----Endosulfan II	37	IU
72-54-8-----4,4'-DDD	37	IU
1031-07-8-----Endosulfan sulfate	37	IU
50-29-3-----4,4'-DDT	37	IU
72-43-5-----Methoxychlor	190	IU
53494-70-5-----Endrin ketone	37	IU
7421-36-3-----Endrin aldehyde	37	IU
5103-71-----alpha-Chlordane	19	IJP
5103-74-----gamma-Chlordane	18	IJ
8001-35-2-----Toxaphene	1900	IU
12674-11-2-----Aroclor-1016	370	IU
11104-28-2-----Aroclor-1221	760	IU
11141-16-5-----Aroclor-1232	370	IU
53469-21-9-----Aroclor-1242	370	IU
12672-29-6-----Aroclor-1248	370	IU
11097-69-1-----Aroclor-1254	370	IU
11096-82-5-----Aroclor-1260	370	IU

PESTICIDE ORGANIC ANALYSIS DATA SHEET

Soil 3

LABORATORY NO.

Lab Name: ENVISYS/STARS

Contract: 62D10084

CKW50

Lab Code: ENVYS

Case No.: 22121

SAS No.:

EDS No.: CKW50

Matrix: (soil/water) SOIL

Lab Sample ID: 27060845

Sample wt/vol: 10.0 (g/mL) G

Lab File ID:

% Moisture: 12 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SasP/Cont/Sonc) SQNC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

317-84-4	alpha-BHC	2.11U
319-85-7	beta-BHC	2.11U
319-86-2	delta-BHC	2.11U
58-99-9	gamma-BHC (Lindane)	2.11U
76-44-3	Heptachlor	2.11U
309-00-2	Aldrin	2.11U
1024-57-3	Heptachlor epoxide	2.11U
959-98-3	Endosulfan I	2.11U
40-57-1	Dieldrin	4.01U
72-55-9	1,4'-DDE	32
72-20-6	Endrin	4.01U
33213-65-7	Endosulfan II	4.01U
72-54-8	4,4'-DDD	4.01U
1031-07-3	Endosulfan sulfate	4.01U
50-29-3	4,4'-DDT	13 IP
72-43-5	Methoxychlor	21 IU
53494-70-3	Endrin ketone	4.01U
7421-36-3	Endrin aldehyde	4.01U
5103-71-9	alpha-Chlordane	7.31P
5103-74-2	gamma-Chlordane	8.71
8001-35-2	Toxaphene	210 IU
12674-11-2	Aroclor-1016	40 IU
11104-28-2	Aroclor-1221	82 IU
11141-16-5	Aroclor-1232	40 IU
53469-21-9	Aroclor-1242	40 IU
12672-29-6	Aroclor-1248	40 IU
11097-69-1	Aroclor-1254	40 IU
11096-82-5	Aroclor-1260	63 IP

FORM 1, PEST

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10
PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Soil 4

Lab Name: ENVISYSYSTEMS

Contract: ASD10084

CKW01

Case: ENVISYS Case No.: 20101

EAS No.:

ESG No.: CKW00

Matrix: (soil/water) SOIL

Lab Sample ID: 20060846

Sample wt/Vol: 20.0 (g/mL) E

Lab File ID:

% Moisture: E decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SecF/Cont/Secd) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.7

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/kg

EAS NO.

COMPOUND

Q

719-24-2	alpha-BHC	1.9	U
719-25-7	beta-BHC	1.9	U
719-26-2	gamma-BHC	1.9	U
56-29-9	gamma-BHC (Lindane)	1.9	U
76-44-2	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-92-2	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.6	U
72-55-9	4,4'-DDE	3.6	U
72-20-8	Endrin	3.6	U
33213-65-7	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	3.6	U
50-29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.6	U
7421-36-2	Endrin aldehyde	3.6	U
5103-71-2	alpha-Chlordane	4.2	U
5103-74-2	gamma-Chlordane	4.3	U
8001-35-2	Toxaphene	190	U
12574-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	74	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

FORM I-PEST

AR000369

OVERDUE

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\$40
1/22

PESTICIDE ORGANIC ANALYSIS DATA SHEET

Soil 5

CKW37
SOIL-5

Lab Name: ENVISYSYSTEMS

Contract: 68D10084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

EDS No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 93040847

Sample wt/vol: 10.0 (g/mL) 2

Lab File ID:

% Moisture: 21 desiccated: (Y/N) N

Date Received: 06/03/93

Extraction: (SocF/Cent/Sonc) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 5000 (mL)

Date Analyzed: 07/09/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.2

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:

ug/L or ug/Kg UG/KG

g

319-34-6	alpha-BHC	2.21U
319-35-7	beta-BHC	2.21U
319-36-8	delta-BHC	2.21U
32-39-9	gamma-BHC (Lindane)	2.21U
78-44-2	Heptachlor	2.21U
309-00-2	Aldrin	2.21U
1024-37-3	Heptachlor epoxide	2.21U
959-23-3	Endosulfan I	2.21U
60-37-1	Dieldrin	4.21U
72-33-7	1,4'-DDD	4.21U
72-20-2	Endrin	4.21U
33213-63-9	Endosulfan II	4.21U
72-54-8	4,4'-DDD	4.21U
1031-07-8	Endosulfan sulfate	4.21U
50-29-3	4,4'-DDT	4.21U
72-43-5	Methoxychlor	22 IU
53494-70-5	Endrin ketone	4.21U
7421-36-3	Endrin aldehyde	4.21U
5103-71-3	alpha-Chlordane	2.21U
5103-74-3	gamma-Chlordane	2.21U
2001-35-2	Toxaphene	220 IU
12674-11-2	Aroclor-1016	42 IU
11104-29-2	Aroclor-1221	95 IU
11141-16-3	Aroclor-1232	42 IU
53469-21-9	Aroclor-1242	42 IU
12672-27-4	Aroclor-1248	42 IU
11097-69-1	Aroclor-1254	42 IU
11096-82-5	Aroclor-1260	42 IU

FORM 1 PEST

AR000370

268000RA

358
561
1993/90

PESTICIDE ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

50128

CKW33

Lab Name: ENVISYSYSTEMS

Contract: 62D10084

Lab Code: ENVISYS

Lab No.: 20101

SAS No.:

SIS No.: CKW33

Matrix: (soil/water) SOIL

Lab Sample ID: 67040841

Sample wt/vol: 20.0 (g/mL) 5

Lab File ID:

% Moisture: 21 decanted: (Y/N) N

Date Received: 06/04/93

Extraction: (SecF/Cent/Sonc) SONC

Date Extracted: 06/09/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 6.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/kg

CAS NO.

COMPOUND

g

319-84-4	alpha-BHC	2.2IU
319-85-7	beta-BHC	2.2IU
319-86-8	gamma-BHC	2.2IU
58-99-9	gamma-BHC (Lindane)	2.2IU
76-44-8	Heptachlor	2.2IU
309-00-2	Dieldrin	2.2IU
1024-57-3	Heptachlor epoxide	2.2IU
959-98-3	Endosulfan I	2.2IU
60-57-1	Dieldrin	4.3IU
72-55-8	4,4'-DDE	9.8IP
72-20-8	Endrin	4.3IU
33217-65-9	Endosulfan II	4.3IU
72-54-6	4,4'-DDD	4.3IU
1031-07-8	Endosulfan sulfate	4.3IU
50-29-3	4,4'-DDT	4.3IU
72-43-5	Methoxychlor	22 IU
53494-70-5	Endrin ketone	4.3IU
7421-36-3	Endrin aldehyde	4.3IU
5103-71-2	alpha-Chlordane	1
5103-74-3	gamma-Chlordane	5.8IP
8001-35-2	Toxaphene	220 IU
12674-11-2	Aroclor-1016	43 IU
11104-28-2	Aroclor-1221	88 IU
11141-16-5	Aroclor-1232	43 IU
53469-21-9	Aroclor-1242	43 IU
12672-29-6	Aroclor-1248	43 IU
11097-69-1	Aroclor-1254	43 IU
11096-82-5	Aroclor-1260	73 IP

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Soil 9

CKW39

Soil 9

Lab Name: ENVISOSYSTEMS

Contract: 65010054

Lab Code: ENVSYS

Case No.: 00100

SAS No.:

SIS No.: CKW20

Matrix: (soil/water) SOIL

Lab Sample ID: 65040942

Sample wt/vol: 20.0 (g/mL) 5

Lab File ID:

% Moisture: 15 discarded: (Y/N) N

Date Received: 06/04/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/09/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/02/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 4.2

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/kg

CAS NO.

COMPOUND

ug/kg

119-84-6	alpha-BHC	2.0IU
119-85-7	beta-BHC	2.0IU
119-86-8	delta-BHC	2.0IU
58-59-9	gamma-BHC (Lindane)	2.0IU
75-44-8	Heptachlor	2.0IU
309-00-2	Aldrin	2.0IU
1024-57-3	Heptachlor epoxide	2.0IU
959-98-8	Endosulfan I	2.0IU
60-57-1	Dieldrin	3.9IU
72-55-9	1,4'-DDE	3.9IU
72-20-2	Endrin	3.9IU
33213-45-9	Endosulfan II	3.9IU
72-54-8	4,4'-DDD	3.9IU
1031-07-8	Endosulfan sulfate	3.9IU
50-29-3	4,4'-DDT	15 IP
72-43-5	Methoxychlor	20 IU
53494-70-5	Endrin ketone	3.9IU
7421-36-3	Endrin aldehyde	3.9IU
5103-71-1	alpha-Chlordane	57 IP
5103-74-1	gamma-Chlordane	55 I
8001-35-1	Toxaphene	200 IU
12674-11-2	Aroclor-1016	39 IU
11104-28-2	Aroclor-1221	80 IU
11141-16-3	Aroclor-1232	39 IU
53469-21-9	Aroclor-1242	39 IU
12672-29-6	Aroclor-1248	39 IU
11097-69-1	Aroclor-1254	39 IU
11096-82-5	Aroclor-1260	38 IJP

FORM I PEST

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SOIL 10

Lab Name: ENVIRONMENTAL

Contract: 68010084

ENV40
SOIL-10

Date: 10/05/93 Case No.: 01111

SPS No.:

SPS No.: ENV40

Matrix: Soil/Water: SOIL

Lab Sample ID: 67060863

Sample wt./Vol: 10.0 (g/mL) E

Lab File ID:

% Moisture: 12 Recanted: (Y/N) N

Date Received: 06/04/93

Extraction: (SapF/Cont/Scnd) EDC

Date Extracted: 06/09/93

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/09/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 4.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) 43/Kg

175 MC

COMPOUND

175 MC	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) 43/Kg
719-31-5	alpha-BHC	2.0IU
719-35-7	beta-BHC	1.0IU
719-36-8	delta-BHC	2.0IU
719-38-9	gamma-BHC (Lincane)	2.0IU
71-44-6	Heptachlor	2.0IU
709-00-2	Aldrin	2.0IU
1024-57-7	Heptachlor epoxide	2.0IU
933-98-2	Endosulfan I	2.0IU
933-99-1	Endosulfan II	3.9IU
72-53-3	4,4'-DDE	3.9IU
72-20-8	Endrin	3.9IU
933-98-2	Endosulfan II	3.9IU
72-54-9	4,4'-DDD	3.9IU
1031-07-9	Endosulfan sulfate	3.9IU
50-29-3	4,4'-DDT	3.9IU
72-43-5	Methoxychlor	20 IU
50494-70-5	Endrin ketone	3.9IU
7421-36-3	Endrin aldehyde	3.9IU
5103-71-9	alpha-Chlordane	2.0IU
5103-74-2	gamma-Chlordane	2.0IU
8001-35-2	Toxaphene	200 IU
12374-11-2	Aroclor-1015	39 IU
11104-28-2	Aroclor-1221	79 IU
11141-14-5	Aroclor-1232	39 IU
53469-21-9	Aroclor-1242	39 IU
12372-29-6	Aroclor-1246	39 IU
11097-69-1	Aroclor-1254	39 IU
11096-82-5	Aroclor-1260	39 IU

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PESTICIDE RESIDUE ANALYSIS DATA SHEET

EPA SAMPLE NO.

Soil II

Lab Name: ENVISYSYSTEMS

Contract: 62010064

CKW41
SOIL - II

Lab Code: ENVSYS

Case No.: 00101

SAS No.:

EDG No.: CKW50

Matrix: (soil/water) SOIL

Lab Sample ID: 97040864

Sample wt/vol: 10.0 (g/mL) 2

Lab File ID:

% Moisture: 19 desiccated: (Y/N) N

Date Received: 04/04/93

Extraction: (SapF/Cont/Sonc) SONC

Date Extracted: 04/14/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/09/93

Injection Volume: 2.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 6.9

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

SAS NO.

COMPOUND

2

319-21-4	alpha-BHC	21	IU
319-25-7	beta-BHC	21	IU
319-26-8	delta-BHC	21	IU
52-29-9	gamma-BHC (Lindane)	21	IU
75-44-8	Heptachlor	21	IU
309-00-2	Aldrin	21	IU
1024-57-3	Heptachlor epoxide	21	IU
659-98-5	Endosulfan I	21	IU
60-37-1	Dieldrin	41	IU
70-35-9	1,4'-DDE	41	IU
72-20-8	Endrin	41	IU
33213-65-9	Endosulfan II	41	IU
72-34-3	1,4'-DDD	41	IU
1031-07-9	Endosulfan sulfate	41	IU
50-29-3	4,4'-DDT	41	IU
72-43-5	Methoxychlor	210	IU
53494-70-5	Endrin ketone	41	IU
7421-36-3	Endrin aldehyde	41	IU
5103-71-2	alpha-Chlordane	52	IP
5103-74-5	gamma-Chlordane	21	IP
8001-35-2	Toxaphene	2100	IU
12574-11-2	Aroclor-1016	410	IU
11104-28-2	Aroclor-1221	830	IU
11141-15-5	Aroclor-1232	410	IU
53469-21-9	Aroclor-1242	410	IU
12572-29-6	Aroclor-1248	410	IU
11097-69-1	Aroclor-1254	410	IU
11096-82-5	Aroclor-1260	750	IP

FORM 1 PEST

ENVISYS

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PESTICIDE RESIDUE ANALYSIS DATA SHEET

EPA SAMPLE NO.

Soil 13

CKW43

Lab Name: ENVISYSYSTEMS

Contract: 42010084

Code: ENVUSYS

Case No.: 20101

SAS No.:

SOS No.: CKW20

Matrix: soil/water SOIL

Lab Sample ID: 93040849

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 15 desiccated: (Y/N) N

Date Received: 04/03/93

Extraction: (SecF/Cont/Sonc) SANC

Date Extracted: 04/06/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

319-24-6	alpha-BHC	2.0IU
319-25-7	beta-BHC	2.0IU
319-26-8	delta-BHC	2.0IU
58-59-9	gamma-BHC (Lindane)	2.0IU
75-41-2	Heptachlor	2.0IU
309-00-2	Aldrin	2.0IU
1024-57-3	Heptachlor epoxide	2.0IU
957-86-1	Endosulfan I	2.0IU
60-57-1	Dieldrin	3.9IU
72-55-9	1,4'-DDE	3.9IU
72-20-8	Endrin	3.9IU
35213-25-9	Endosulfan II	3.9IU
72-54-8	4,4'-DDD	3.9IU
1031-07-9	Endosulfan sulfate	3.9IU
50-29-3	4,4'-DDT	3.9IU
72-43-5	Methoxychlor	20 IU
53494-70-5	Endrin ketone	3.9IU
7421-36-3	Endrin aldehyde	3.9IU
5103-71-4	alpha-Chlordane	2.81
5103-74-5	gamma-Chlordane	1.51JP
5001-35-2	Toxaphene	200 IU
12674-11-2	Aroclor-1016	39 IU
11104-28-2	Aroclor-1221	80 IU
11141-16-5	Aroclor-1232	39 IU
53469-21-9	Aroclor-1242	39 IU
12672-29-6	Aroclor-1248	39 IU
11097-69-1	Aroclor-1254	39 IU
11096-82-5	Aroclor-1260	23 IU

FORM : PEST

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SED 1

CKW130

Lab Name: ENVISYSYSTEMSContract: 62D10064Lab Code: ENVYSYSCase No.: 20101

SAS No.:

SDG No.: CKW130Matrix: (soil/water) SOILLab Sample ID: 93060874Sample wt/vol: 10.0 (g/mL) 5

Lab File ID:

% Moisture: 40 cecanted: (Y/N) NDate Received: 06/04/93Extraction: (SoxH/Cont/SoxH) SCNCDate Extracted: 06/14/93Concentrated Extract Volume: 5000 (uL)Date Analyzed: 07/08/93Injection Volume: 2.00 (uL)Dilution Factor: 10.0GPC Cleanup: (Y/N) YpH: 7.4Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

g

319-84-9	alpha-BHC	28	U
319-85-7	beta-BHC	28	U
319-86-8	delta-BHC	28	U
58-39-9	gamma-BHC (Lindane)	28	U
76-44-8	Heptachlor	28	U
309-00-2	Aldrin	28	U
1024-57-3	Heptachlor epoxide	28	U
959-98-8	Endosulfan I	28	U
60-57-1	Dieldrin	55	U
72-55-9	1,1'-DDE	55	U
72-20-8	Endrin	55	U
33213-65-9	Endosulfan II	55	U
72-54-8	4,4'-DDD	55	U
1031-07-8	Endosulfan sulfate	55	U
50-29-3	4,4'-DDT	55	U
72-43-5	Methoxychlor	280	U
53494-70-5	Endrin ketone	55	U
7421-36-3	Endrin aldehyde	55	U
5103-71-9	alpha-Chlordane	28	U
5103-74-8	gamma-Chlordane	28	U
8001-35-2	Toxaphene	2800	U
12574-11-2	Aroclor-1016	550	U
11104-28-2	Aroclor-1221	1100	U
11141-16-5	Aroclor-1232	550	U
53469-21-9	Aroclor-1242	550	U
12572-29-6	Aroclor-1248	550	U
11097-69-1	Aroclor-1254	550	U
11096-82-5	Aroclor-1260	550	U

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

SED 2

CKW19

Lab Name: ENVISYSYSTEMS

Contract: SED10084

Lab Code: ENVISYS

Case No.: 20101

SAS No.:

SDG No.: CKW26

Matrix: (soil/water) SOIL

Lab Sample ID: 93060575

Sample wt/vol: 10.0 (g/mL) G

Lab File ID:

% Moisture: 46 decanted: (Y/N) N

Date Received: 06/04/93

Extraction: (SepF/Cent/Sonc) SONC

Date Extracted: 06/14/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y

pH: 7.2

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

319-84-4	alpha-BHC	31	U
319-85-7	beta-BHC	31	U
319-86-8	gamma-BHC	31	U
58-89-9	gamma-BHC (Lindane)	31	U
76-44-8	Heptachlor	31	U
309-00-2	Aldrin	31	U
1024-57-3	Heptachlor epoxide	31	U
959-98-8	Endosulfan I	31	U
60-57-1	Dieldrin	61	U
72-55-9	1,4'-DDE	61	U
72-20-8	Endrin	61	U
33213-65-9	Endosulfan II	61	U
72-54-8	1,4'-DDD	61	U
1031-07-8	Endosulfan sulfate	61	U
50-29-3	1,4'-DDT	61	U
72-43-5	Methoxychlor	310	U
53494-70-5	Endrin ketone	61	U
7421-36-3	Endrin aldehyde	61	U
5103-71-9	alpha-Chlordane	31	U
5103-74-2	gamma-Chlordane	31	U
8001-35-2	Toxaphene	3100	U
12674-11-2	Aroclor-1016	610	U
11104-28-2	Aroclor-1221	1200	U
11141-16-5	Aroclor-1232	610	U
53469-21-9	Aroclor-1242	610	U
12672-29-6	Aroclor-1248	610	U
11097-69-1	Aroclor-1254	610	U
11096-82-5	Aroclor-1260	610	U

FORM I PEST

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10
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED 8

Lab Name: ENVIROSYSTEMS

Contract: 68010084

CKW25
SED-8

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW36

Matrix: (soil/water) SOIL

Lab Sample ID: 93040876

Sample wt/vol: 50.0 (g/mL) G

Lab File ID:

% Moisture: 11 decanted: (Y/N) N

Date Received: 06/04/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/09/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.4

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

319-84-6	alpha-BHC	1.9IU
319-85-7	beta-BHC	1.9IU
319-86-8	delta-BHC	1.9IU
58-99-9	gamma-BHC (Lindane)	1.9IU
76-44-8	Heptachlor	1.9IU
309-00-2	Aldrin	1.9IU
1024-57-3	Heptachlor epoxide	1.9IU
959-98-8	Endosulfan I	1.9IU
60-57-1	Dieldrin	3.7IU
72-55-9	4,4'-DDE	3.7IU
72-20-8	Endrin	3.7IU
33213-65-9	Endosulfan II	3.7IU
72-54-8	4,4'-DDD	3.7IU
1031-07-8	Endosulfan sulfate	3.7IU
50-29-3	4,4'-DDT	3.7IU
72-43-5	Methoxychlor	19 IU
53494-70-3	Endrin ketone	3.7IU
7421-36-7	Endrin aldehyde	3.7IU
5103-71-2	alpha-Chlordane	1.9IU
5103-74-3	gamma-Chlordane	1.9IU
8001-35-5	Toxaphene	190 IU
12674-11-2	Aroclor-1016	37 IU
11104-28-2	Aroclor-1221	75 IU
11141-16-5	Aroclor-1232	37 IU
53469-21-9	Aroclor-1242	37 IU
12672-29-6	Aroclor-1248	37 IU
11097-69-1	Aroclor-1254	37 IU
11096-82-5	Aroclor-1260	37 IU

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Soil 6

CKW56
Soil-6

Lab Name: ENVISYSYSTEMS

Contract: 93010084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW56

Matrix: (soil/water) SOIL

Lab Sample ID: 93060848

Sample wt/vol: 20.0 (g/mL) 2

Lab File ID:

% Moisture: 10 decanted: (Y/N) N

Date Received: 06/03/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/08/93

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 07/07/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.5

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

319-84-6	alpha-BHC	1.9IU
319-85-7	beta-BHC	1.9IU
319-86-8	delta-BHC	1.9IU
58-69-9	gamma-BHC (Lindane)	1.9IU
76-44-8	Heptachlor	1.9IU
309-00-2	Aldrin	1.9IU
1024-57-3	Heptachlor epoxide	1.9IU
959-98-6	Endosulfan I	1.9IU
60-57-1	Dieldrin	3.7IU
72-35-9	4,4'-DDE	3.7IU
72-20-8	Endrin	3.7IU
33213-65-9	Endosulfan II	3.7IU
72-34-8	4,4'-DDD	3.7IU
1031-07-8	Endosulfan sulfate	3.7IU
50-29-3	4,4'-DDT	3.7IU
72-43-5	Methoxychlor	19 IU
53494-70-5	Endrin ketone	3.7IU
7421-36-3	Endrin aldehyde	3.7IU
5103-71-9	alpha-Chlordane	1.9IU
5103-74-2	gamma-Chlordane	1.9IU
8001-35-2	Toxaphene	190 IU
12574-11-2	Aroclor-1016	37 IU
11104-28-2	Aroclor-1221	74 IU
11141-16-5	Aroclor-1232	37 IU
53469-21-9	Aroclor-1242	37 IU
12572-29-6	Aroclor-1248	37 IU
11097-69-1	Aroclor-1254	37 IU
11096-82-5	Aroclor-1260	37 IU

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

Soil 7

CKW37

Lab Name: ENVIROSYSTEMS

Contract: 68010084

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW34

Matrix: (soil/water) SOIL

Lab Sample ID: 93040877

Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 12 decanted: (Y/N) N

Date Received: 04/04/93

Extraction: (SoxH/Cont/Soxc) SONC

Date Extracted: 04/09/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 07/08/93

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 7.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

319-84-1	alpha-BHC	2.1IU
319-85-7	beta-BHC	2.1IU
319-86-8	delta-BHC	2.1IU
58-89-9	gamma-BHC (Lindane)	2.1IU
76-44-8	Heptachlor	2.1IU
309-00-2	Aldrin	2.1IU
1024-57-3	Heptachlor epoxide	2.1IU
959-98-8	Endosulfan I	2.1IU
60-57-1	Dieldrin	53 IP
72-55-9	4,4'-DDE	16 IP
72-20-8	Endrin	4.0IU
33213-65-9	Endosulfan II	4.0IU
72-54-8	4,4'-DDD	5.7IP
1031-07-8	Endosulfan sulfate	4.0IU
50-29-3	4,4'-DDT	4.0IU
72-43-5	Methoxychlor	21 IU
53494-70-3	Endrin ketone	4.0IU
7421-34-3	Endrin aldehyde	4.0IU
5103-71-9	alpha-Chlordane	2.1IU
5103-74-2	gamma-Chlordane	2.1IU
8001-35-2	Toxaphene	210 IU
12674-11-2	Aroclor-1016	40 IU
11104-28-2	Aroclor-1221	82 IU
11141-16-5	Aroclor-1232	40 IU
53469-21-9	Aroclor-1242	40 IU
12672-29-6	Aroclor-1248	40 IU
11097-69-1	Aroclor-1254	40 IU
11096-82-5	Aroclor-1260	40 IU

FORM I PEST

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Lab Name: ENVIROSYSTEMSContract: 4SD10084

CKW42

Lab Code: ENVSYSCase No.: 00101SAS No.: 001SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 57060865Sample wt/vol: 20.0 (g/mL) 2

Lab File ID:

% Moisture: 16 decanted: (Y/N) NDate Received: 06/04/93Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 06/14/93Concentrated Extract Volume: 5000 (uL)Date Analyzed: 07/07/93Injection Volume: 2.00 (uL)Dilution Factor: 10.0GPC Cleanup: (Y/N) YpH: 7.3Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

G

319-34-6	alpha-BHC	20	U
319-35-7	beta-BHC	20	U
319-36-8	delta-BHC	20	U
58-69-9	gamma-BHC (Lindane)	20	U
76-44-8	Heptachlor	20	U
309-00-2	Aldrin	20	U
1024-57-3	Heptachlor epoxide	20	U
959-98-9	Endosulfan I	20	U
60-57-1	Dieldrin	39	U
72-55-9	4,4'-DDE	39	U
72-20-8	Endrin	39	U
33213-65-9	Endosulfan II	39	U
72-54-8	4,4'-DDD	39	U
1031-07-8	Endosulfan sulfate	39	U
50-29-3	4,4'-DDT	39	U
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin ketone	39	U
7421-36-3	Endrin aldehyde	39	U
5103-71-9	alpha-Chlordane	93	P
5103-74-0	gamma-Chlordane	100	
8001-35-2	Toxaphene	2000	U
12674-11-0	Aroclor-1016	390	U
11104-28-2	Aroclor-1221	800	U
11141-16-5	Aroclor-1232	390	U
53469-21-9	Aroclor-1242	390	U
12672-29-6	Aroclor-1248	390	U
11097-69-1	Aroclor-1254	390	U
11096-82-5	Aroclor-1260	390	U

FORM I PEST

AR000381

3/90

Soil 14

CKW60

Lab Name: ENVISYSYSTEMS

Contract: 62010094

Lab Code: ENVSYS

Case No.: 20101

SAS No.:

SDG No.: CKW36

Matrix: (soil/water) SOILLab Sample ID: 93060866Sample wt/vol: 20.0 (g/mL) G

Lab File ID:

% Moisture: 33 decanted: (Y/N) NDate Received: 06/04/93Extraction: (SocF/Cont/Sonc) SCNCDate Extracted: 06/14/93Concentrated Extract Volume: 3000 (uL)Date Analyzed: 07/08/93Injection Volume: 2.00 (uL)Dilution Factor: 10.0GPC Cleanup: (Y/N) YpH: 6.9Sulfur Cleanup: (Y/N) N

CAS NO. COMPCUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG G

317-24-2-----alpha-BHC	29	UU
317-35-7-----beta-BHC	29	UU
317-86-2-----delta-BHC	29	UU
58-89-9-----gamma-BHC (Lindane)	29	UU
76-44-8-----Heptachlor	29	UU
309-00-2-----Aldrin	29	UU
1024-57-3-----Heptachlor epoxide	29	UU
959-98-8-----Endosulfan I	29	UU
60-57-1-----Dieldrin	34	UU
72-35-9-----1,1'-DDE	34	UU
72-20-2-----Dendrin	34	UU
33215-65-9-----Endosulfan II	34	UU
72-34-8-----4,4'-DDD	34	UU
1031-07-8-----Endosulfan sulfate	34	UU
50-29-3-----4,4'-DDT	34	UU
72-43-5-----Methoxychlor	290	UU
53494-70-5-----Endrin ketone	34	UU
7421-36-3-----Endrin aldehyde	34	UU
5103-71-9-----alpha-Chlordane	29	UU
5103-74-2-----gamma-Chlordane	29	UU
9001-35-4-----Toxaphene	2900	UU
12674-11-0-----Aroclor-1016	340	UU
11104-28-2-----Aroclor-1221	1100	UU
11141-16-5-----Aroclor-1232	340	UU
53469-21-9-----Aroclor-1242	340	UU
12672-29-6-----Aroclor-1248	340	UU
11097-69-1-----Aroclor-1254	340	UU
11096-82-5-----Aroclor-1260	340	UU

FORM 1 PEST

AR000382

3/90

Lab Name: ENVISYSTEMSContract: 68D10084

CKW61

Lab Code: ENVISYSCase No.: 20101

EAS No.:

SDG No.: CKW36Matrix: (soil/water) SOILLab Sample ID: 93060867Sample wt./vol: 22.2 (g/mL) G

Lab File ID:

% Moisture: 22 decanted: (Y/N) NDate Received: 06/04/93Extraction: (SoxH/Cont/SoxH) SONCDate Extracted: 06/14/93Concentrated Extract Volume: 5000 (uL)Date Analyzed: 07/08/93Injection Volume: 2.00 (uL)Dilution Factor: 100GPC Cleanup: (Y/N) YpH: 4.0Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

G

CAS NO.

COMPOUND

319-94-2	alpha-BHC	230	IU
319-95-7	beta-BHC	230	IU
319-96-6	gamma-BHC	230	IU
58-29-9	gamma-BHC (Lindane)	230	IU
76-44-6	Heptachlor	230	IU
309-00-2	Aldrin	230	IU
1024-57-3	Heptachlor epoxide	230	IU
959-98-8	Endosulfan I	230	IU
60-57-1	Dieldrin	960	I
72-53-9	4,4'-DDE	440	IU
72-20-8	Endrin	440	IU
33213-65-9	Endosulfan II	440	IU
72-54-8	4,4'-DDD	440	IU
1031-07-8	Endosulfan sulfate	440	IU
50-29-3	4,4'-DDT	440	IU
72-43-5	Methoxychlor	2300	IU
53494-70-5	Endrin ketone	440	IU
7421-36-3	Endrin aldehyde	440	IU
5103-71-9	alpha-Chlordane	230	IU
5103-74-2	gamma-Chlordane	230	IU
8001-35-4	Toxaphene	23000	IU
12674-12-2	Aroclor-1016	4400	IU
11104-28-2	Aroclor-1221	8900	IU
11141-16-5	Aroclor-1232	4400	IU
53469-21-9	Aroclor-1242	4400	IU
12672-29-6	Aroclor-1248	4400	IU
11097-69-1	Aroclor-1254	4400	IU
11096-82-5	Aroclor-1260	4400	IU

FORM I PEST

AR000383

48000000

3/90

Lab Name: ENVISYSYSTEMSContract: 5SD10084

CKW62

Lab Code: ENVSYSCase No.: 20101

SAS No.:

SDG No.: CKW62Matrix: (soil/water) SDILab Sample ID: 93040868Sample wt/vol: 20.00 (g/mL) G

Lab File ID:

% Moisture: 62 decanted: (Y/N) NDate Received: 06/04/93Extraction: (SepF/Cont/Sonc) SGNCDate Extracted: 06/14/93Concentrated Extract Volume: 5000 (uL)Date Analyzed: 07/09/93Injection Volume: 2.00 (uL)Dilution Factor: 10.0GPC Cleanup: (Y/N) YpH: 6.4Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

g

319-84-6	alpha-BHC	45	1U
319-85-7	beta-BHC	45	1U
319-86-8	gamma-BHC	45	1U
55-29-9	gamma-BHC (Lindane)	45	1U
76-44-8	Heptachlor	45	1U
309-00-2	Aldrin	45	1U
1024-37-3	Heptachlor epoxide	45	1U
959-98-8	Endosulfan I	45	1U
60-57-1	Dieldrin	87	1U
72-55-9	1,4'-DDE	87	1U
72-20-8	Endrin	87	1U
33213-65-9	Endosulfan II	87	1U
72-54-8	1,4'-DDD	87	1U
1031-07-8	Endosulfan sulfate	87	1U
50-29-3	1,4'-DDT	87	1U
72-43-5	Methoxychlor	450	1U
53494-70-5	Endrin ketone	87	1U
7421-36-3	Endrin aldehyde	87	1U
5103-71-9	alpha-Chlordane	45	1U
5103-74-8	gamma-Chlordane	45	1U
8001-35-8	Toxaphene	4500	1U
12674-12-2	Aroclor-1016	870	1U
11104-28-2	Aroclor-1221	1800	1U
11141-16-5	Aroclor-1232	870	1U
53469-21-9	Aroclor-1242	870	1U
12672-29-6	Aroclor-1248	870	1U
11097-69-1	Aroclor-1254	870	1U
11096-82-5	Aroclor-1260	870	1U

FORM I PEST

3/90

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Y25A

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PAGE 3 (16)

EPA SAMPLE SCIPPING LOG

MD/SL

(REQUIRED FOR ALL SAMPLES SENT THROUGH THE CONTRACT LAB PROGRAM)

PROJECT SITE NAME: 68th Street Dump Site EPA PROJ OFFICER: MICHAEL TALLINO

SAS NO. 20101 ; SAS NO. ; TASK NO.

PROJECT SITE LEADER: GINNY SELLS ; PHONE NO. (410) 631-3493

PROJECT SAMPLE COORDINATOR: MICHELE MOSCO ; PHONE NO. (410) 631-3465

XC SAMPLE INFORMATION (LOW/MED/HIGH) COMMENTS	CONC.	SAMPLE PHASE (AQ/SOL)	SAMPLE TYPE OF REQUEST (ORG/ORG/SAS)	EPA SAMPLE NO.	ORGANICS OR INORGANICS					DATA RECEIVED (XX-OUT ITEMS NOT REQUESTED)									
					LAB NAME	DATE SHTED	VOL	DATA	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	LOW	AQ	ORG	CKW 46	6-2-93	ENVSYS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LEADY SPIKE				CKW 47			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
up of CKW 46				CKW 48			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 49			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 50			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 52			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 53			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 54			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 55			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
up of CKW 46				CKW 56			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2ND BLANK				CKW 57			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 44	6-3-93		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 45			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 51			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
				CKW 59			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TRIP BLANK				CKW 58			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

RECEIVED
JUN 1993
13 JUN 1993

ORIGINAL (Red)

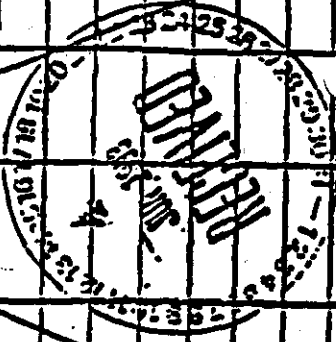
AR000385

EPA SAMPLE SHIPPING LOG

(REQUIRED FOR ALL SAMPLES SENT THROUGH THE CONTRACT LAB PROGRAM)

PROJECT SITE NAME: 68th Street Dump Site ; EPA PROJ OFFICER: Michael Taurino
 RAS NO. 20101 ; SAS NO. 1 ; TASK NO. 1
 PROJECT SITE LEADER: CLAUDE SELLS ; PHONE NO. (410) 631-3493
 PROJECT SAMPLE COORDINATOR: NICHELLE MOSCO ; PHONE NO. (410) 631-3465

QC SAMPLE IDENTIFICATION AND/OR COMMENTS	CONC. (LOW/MED/HIGH)	SAMPLING PHASE (AQ/SOL)	TYPE OF REQUEST (ORG/DO/OTHER)	EPA SAMPLE NO.	ORGANICS OR INORGANICS				DATA RECEIVED (XX-OIT ITEMS NOT REQUESTED)				LAB NAME	DATE SHIPPED	SAS REQUEST (DETAILS)	DATE SHIPPED	DATA REC'D.
					LAB NAME	DATE SHIPPED	VQA DATA	TEST	METALS	CN							
					ENVSYS	6-2-73											
	LOW	SOL	ORG	CKW 20													
				CKW 21													
				CKW 22													
				CKW 23													
				CKW 24													
				CKW 26													
				CKW 27													
				CKW 28													
				CKW 29													
				CKW 30													
				CKW 31													
				CKW 32													
				CKW 33													
				CKW 34													
				CKW 35													
				CKW 36													
				CKW 43													
				CKW 13													



AR000386

EPA SAMPLE SHIPPING LOG

PAGE 2 OF 6

(REQUIRED FOR ALL SAMPLES SENT THROUGH THE CONTRACT LAB PROGRAM)

MD/ST

PROJECT SITE NAME: 68th Street Dump Site EPA PROJ. OFFICER: Michael Taurino

SAS NO. 20101 ; SAS NO. ; TASK NO.

PROJECT SITE LEADER: GLADY SELLS ; PHONE NO. (910) 631-3493

PROJECT SAMPLE COORDINATOR: MICHELE MOSCO ; PHONE NO. (910) 631-3165

SAS REQUEST (DETAILS REQUIRED)
(10)

XS SAMPLE INFORMATION (ORG/NOV/COMMENTS) (1)	CONC. (1000/1000) (2)	SAMPLE PHASE (AQ/SOL) (3)	TYPE OF REQUEST (ORG/NOV/SAS) (4)	EPA SAMPLE NO. (5)	ORGANICS OR INORGANICS				DATA RECEIVED (XX-OIT ITEMS NOT REQUESTED)				LAD NAME (6)	DATE SHIPPED (7)	VQA DATA (8)	TEST ITEM (9)	METALS (10)	CN (11)
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)						
	LOW	SOL	ORG	CKW 25	ENV 315	6-3-73			X	X	X	X	ENV 315	6-3-73		X	X	X
				CKW 37					X	X	X	X				X	X	X
				CKW 38					X	X	X	X				X	X	X
				CKW 39					X	X	X	X				X	X	X
				CKW 40					X	X	X	X				X	X	X
				CKW 41					X	X	X	X				X	X	X
				CKW 42					X	X	X	X				X	X	X
				CKW 60					X	X	X	X				X	X	X
				CKW 61					X	X	X	X				X	X	X
				CKW 62					X	X	X	X				X	X	X



ORIGINAL (Red)

AR000387



United States Environmental Protection Agency
Central Laboratory Program Sample Manager
PO Box 818 Alexandria, VA 22315
703-567-2400 FAX 703-567-3000

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

1. Project Sply		Account Code		2. Region No. Sampling Co.		4. Date Shipped/Carrier		SAS No. (if applicable)		Case No.	
94-11		275653N933		III MDE/ERP		6-3-93 FEDERAL EXPRESS				20101	
Regional Information				Sampler (Name)		Airbill Number		6. Preservative (Enter in Column D)		7. Sample Description (Enter in Column A)	
Non-Superfund Program				GINNY SELLS		6592971603		1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Not Preserved		1. Surface Water 2. Ground Water 3. Leachate 4. Pinpoint 5. Oil (High only) 6. Waste (High only) 7. Other (Specify)	
Site Name				Sample Signature		5. Ship To		8. Sampler Initials		9. Enter Appropriate Qualifier for Designated Field QO	
685D				Lenny Bell		ENVIROSYSTEMS, INC. 9200 Rumsey Road Suite 2102 California, MD 21045 ATTN: Susan M. Penner / Lisa L. Bell (410) 264-0330		Corresp. CLP Inorg. Sample No.		K	
City, State				Type of Sample		Regional Spec No. or Tag Number		H. Date/Time Sample Collection		G. Station Location Number	
DARTMOUTH, MA				SF PRP ST FED		3-1233328 3-1233329 3-1233330 3-1233331 3-1233332 3-1233333 3-1233334 3-1233335		6-3-93/1100 6-3-93/0950 6-3-93/0845 6-3-93/1250 6-3-93/0100		SW-1 SW-2 SW-8 GN-1 BK-TPI	
CLP Sample Numbers (from labels)				D. Preservative		E. RAS Analysis		F. Regional Spec No. or Tag Number		I. Chain of Custody Seal Number	
CKW 44				1.6		VOA BNA PCB ARO/TOX		3-1233336 3-1233337 3-1233338 3-1233339 3-1233340 3-1233341 3-1233342 3-1233343		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 45				1.6		X X X X X X X X		3-1233344 3-1233345 3-1233346 3-1233347 3-1233348 3-1233349 3-1233350 3-1233351		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 51				1.6		X X X X X X X X		3-1233352 3-1233353 3-1233354 3-1233355 3-1233356 3-1233357 3-1233358 3-1233359		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 54				1.6		X X X X X X X X		3-1233360 3-1233361 3-1233362 3-1233363 3-1233364 3-1233365 3-1233366 3-1233367		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 58				1.6		X X X X X X X X		3-1233368 3-1233369 3-1233370 3-1233371 3-1233372 3-1233373 3-1233374 3-1233375		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 18				1.6		X X X X X X X X		3-1233376 3-1233377 3-1233378 3-1233379 3-1233380 3-1233381 3-1233382 3-1233383		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 19				1.6		X X X X X X X X		3-1233384 3-1233385 3-1233386 3-1233387 3-1233388 3-1233389 3-1233390 3-1233391		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 25				1.6		X X X X X X X X		3-1233392 3-1233393 3-1233394 3-1233395 3-1233396 3-1233397 3-1233398 3-1233399		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
CKW 31				1.6		X X X X X X X X		3-1233400 3-1233401 3-1233402 3-1233403 3-1233404 3-1233405 3-1233406 3-1233407		MSB 18 MSB 19 MSB 20 MSB 21 MSB 22	
Shipment for Case complete? (Y/N)				Page 1 of 2		Sample used for a spike and/or duplicate		Additional Sample Signatures		Chain of Custody Seal Number	
Y								Susan M. Penner Lisa L. Bell		47616	

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Michelle A. Moseley	6-3-93 1600						
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N		
EPA Form 816-2 (Rev. 5-01) Replaces EPA Form 8015-7, previous editions which may be used				Split Samples <input type="checkbox"/> Accepted <input type="checkbox"/> Declined <input type="checkbox"/>			
CUSTOMER: BNA-BA				Color: Pink - SMO Copy - White - Lab Copy for Return to Region Yellow - Lab			

10000388

[illegible]



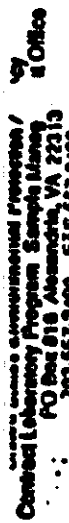
1. Project Code		Account Code		2. Region No. Sampling Co.		4. Date Shipped/Carrier		Case No.	
275A03M9E3		275A03M9E3		III MDE/ERRP		6-2-93 FEDERAL EXPRESS		20101	
Regional Information				Sample (Name)		Airbill Number		6. Preserver valve (Enter in Column D)	
Non-Superfund Program				GINNY SELLS		6592971895		1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Ice only N. Not preserved	
Site Name				Sample Signature		5. Ship To		7. Sample Description (Enter in Column A)	
b8SD				[Signature]		ENVIROSYSTEMS, INC. 9200 RUMSEY ROAD SUITE 410 Bldg COLUMBIA, MD 21045 ATTN: SUSAN M. PEARCE/LISA LAZZELL		1. Surface Water 2. Ground Water 3. Leachate 4. Runoff 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	
City/State		Site Spill ID		Type of Activity		Regional Specie Tracking Number of Top Numbers		Enter Appropriate Qualifier for Designated Field QC	
Baltimore, MD		—		SF [] PA [] SS [] LS []		3-1243745 through 3-1243745		G. B - Back S - Spine D - Duplicate PE - Petroleum Evol. — Not a QC Sample	
CLP Sample Numbers (from labels)		A. Enter # from Box 7		B. Conc. Low Med High		C. Sample Type: Comp/Grab		D. Preserver valve from Box 6	
CKW 57		43		L		G		1.6	
CKW 20		5		L		G		1.6	
CKW 21		5		L		G		1.6	
CKW 22		5		L		G		1.6	
CKW 23		5		L		G		1.6	
CKW 24		5		L		G		1.6	
CKW 26		5		L		G		1.6	
CKW 27		5		L		G		1.6	
CKW 28		5		L		G		1.6	
CKW 29		5		L		G		1.6	
Shipment for Case complete? (Y/N)		Page 1 of 3		Sample used for a spike and/or duplicate		Additional Sample Signatures		Chain of Custody Seal Number	
N		3		DO on CKW 21		[Signatures]		29446	

CHAIN OF CUSTODY RECORD					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
<i>Michele A. Mosco</i>	6-29-83 1730				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Date / Time
<i>[Signature]</i>				is custody seal intact? Y/N None	

EPA Form 8160-2 (Rev. 5-81) Replaces EPA Form (207-7), previous edition which may be used.

DISTRIBUTE:
Blue - So. Copy
Pink - SMO Copy
White - Lab Copy for Return to Region
Yellow - Lab

Split Samples ☐ Accepted (Signature)
☐ Declined



Organic Traffic in & Chain of Custody Record

SAS No.
(If applicable)

Case No.

1. Proj Code		Account Code		2. Region No. Sampling Co.		4. D. Shipped Carrier		(For Organic CLP Analysis)	
7		215A03N932		TIE		6-2-93		FEDERAL EXPRESS	
Regional Information				Sample (Name)		Airbill Number		6592971895	
Non-Superfund Program				GINNY SELLS		5. Ship to		ENVIROSYSTEMS, INC. 9200 RUMSEY ROAD SILVER SPRING, MD 20910	
Site Name				Sample Signature		ATTN: SUSAN M. PEARCE/LISA LAZZELL		(110) 961-0930	
68 SD				Type of Activity		COLUMBIA, MD 21045			
City/State				SF		SUSAN M. PEARCE/LISA LAZZELL			
Baltimore, MD				PT		ATTN: SUSAN M. PEARCE/LISA LAZZELL			
Site Spill ID				ST		ATTN: SUSAN M. PEARCE/LISA LAZZELL			
Baltimore, MD				FED		ATTN: SUSAN M. PEARCE/LISA LAZZELL			
CLP Sample Numbers (from labels)				Conc. Low Med High		Sample Type: Comp Grab		Preservative from Box 6	
CKW 30				L		G		b	
CKW 31				L		G		b	
CKW 32				L		G		b	
CKW 33				L		G		b	
CKW 34				L		G		b	
CKW 35				L		G		b	
CKW 36				L		G		b	
CKW 43				L		G		b	
CKW 44				L		G		b	
CKW 45				L		G		b	
CKW 46				L		G		b	
CKW 47				L		G		b	
CKW 48				L		G		b	
CKW 49				L		G		b	
CKW 50				L		G		b	
CKW 51				L		G		b	
CKW 52				L		G		b	
CKW 53				L		G		b	
CKW 54				L		G		b	
CKW 55				L		G		b	
CKW 56				L		G		b	
CKW 57				L		G		b	
CKW 58				L		G		b	
CKW 59				L		G		b	
CKW 60				L		G		b	
CKW 61				L		G		b	
CKW 62				L		G		b	
CKW 63				L		G		b	
CKW 64				L		G		b	
CKW 65				L		G		b	
CKW 66				L		G		b	
CKW 67				L		G		b	
CKW 68				L		G		b	
CKW 69				L		G		b	
CKW 70				L		G		b	
CKW 71				L		G		b	
CKW 72				L		G		b	
CKW 73				L		G		b	
CKW 74				L		G		b	
CKW 75				L		G		b	
CKW 76				L		G		b	
CKW 77				L		G		b	
CKW 78				L		G		b	
CKW 79				L		G		b	
CKW 80				L		G		b	
CKW 81				L		G		b	
CKW 82				L		G		b	
CKW 83				L		G		b	
CKW 84				L		G		b	
CKW 85				L		G		b	
CKW 86				L		G		b	
CKW 87				L		G		b	
CKW 88				L		G		b	
CKW 89				L		G		b	
CKW 90				L		G		b	
CKW 91				L		G		b	
CKW 92				L		G		b	
CKW 93				L		G		b	
CKW 94				L		G		b	
CKW 95				L		G		b	
CKW 96				L		G		b	
CKW 97				L		G		b	
CKW 98				L		G		b	
CKW 99				L		G		b	
CKW 100				L		G		b	

Relinquished by: (Signature) <i>Michelle A. More</i>	Date / Time 6-2-93 / 1730	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature) <i>[Signature]</i>	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

EPX Form 9116-2 (Rev. 9-91) Replaces EPA Form (2075-7), previous edition which may be used

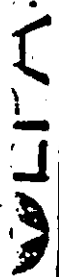
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Blue - Region Copy Print - 8110 Copy White - Lab Copy for Return to Region Yellow - Lab

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PO Box 918 Alexandria, VA 22313
703-657-2400 FAX 703-657-2400

Office

& Chain of Custody Record

(For Organic CLP Analytes)

20101

1. Project Code 275A03N922		2. Region No. Sampling Co. TIL MDE/ERP		4. Date Shipped Carrier 6-3-95 FEDERAL EXPRESS		6. Preservative (Enter in Column D) 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Ice only 7. N-Nit 8. preserved		7. Sample Description (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Sludge 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	
Regional Information		Sample (Name) GINNY SELLS		Airbill Number 6592971803		5. Ship To ENVIRO SYSTEMS, INC. 9200 Rumsey Road Suite # 1102 Columbia, MD 21045 ATTN: Susan M. Penick/144 LAZARUS (410) 964-0350		Chain of Custody Seal Number	
Non-Superfund Program		Sample Signature <i>Ginny Sells</i>		Additional Signer Signatures <i>[Signature]</i>		Date / Time		Received by: (Signature)	
Site Name 685D		Type of Activity SF PUM ST FED		Regional Specifics Tracking Number 3-123456789		Station Location Number SOIL-8		Sample Initials W.F.	
City, State Baltimore MD		Site Spill ID		FAS Analysis VOA BNA PCB TOX		Date / Time 6-3-95/0910		Corresponding CLP box MCSB 38	
CLP Sample Numbers (from labels)		Conc. Sample Low Med High		High only PCB TOX		Date / Time 6-3-95/1115		Sample No. MCSB 39	
CLP 38		L		X		Date / Time 6-3-95/1015		Sample No. MCSB 40	
CLP 39		L		X		Date / Time 6-3-95/1050		Sample No. MCSB 41	
CLP 40		L		X		Date / Time 6-3-95/1130		Sample No. MCSB 42	
CLP 41		L		X		Date / Time 6-3-95/1330		Sample No. MCSB 61	
CLP 42		L		X		Date / Time 6-3-95/1325		Sample No. MCSB 62	
CLP 60		L		X					
CLP 61		L		X					
CLP 62		L		X					
Shipment for Case complete? (Y/N)		Page 1 of 2		Sample used for a spike and/or duplicate					

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